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Sir Horace Plunkett, wrote, "Your essay on the co-operation of the future is intensely interesting and well thought out .. . .I assure you, you have the deepest sympathy of a fellow worker."

The late Lord Roberts, wrote, "It appears to me an honest attempt at the solution of problems of the greatest moment to the State."

Professor Charles Gide, Professor of Social Economics of the University of Paris, the prominent economist of Europe, in a lengthy review of the French edition of Captain Petavel's book concludes by saying "There is no doubt that events are leading us towards the realisation of what the Author foresees."

Dr. Sadler, President, Calcutta University Commission, says, "I have received your paper and hope your plan will be tried."

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Professor Richard, (Bordeaux University) says, "No better book has been written on its subject. Contains novel and scientifically true ideas."

Prefessor Louis Wuarin, Professor of Social Economics of the University of Geneva, says, "Captain Petavel shows in his studies a knowledge and earnestness, together with remarkable ingenuity."

The Journal de Geneve (in a leading article) says, "Shows strong common sense and that characteristically English faculty for presenting abstract problems in a practical light."

The Educational Colonies Association

Hon. Sec. J. B. Penning-ton, Esq., I.C.S , 3, Victoria Street, Westminster, London, S. W., has been formed to advocate the plan.

Literature can be obtained from the Association.

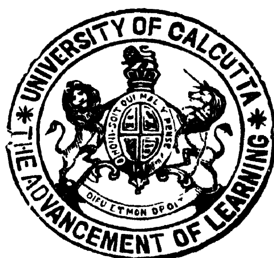
Man and Machine Power
in
War and Reconstruction

By

Capt. J. W. Petavel, R.E. (Retd.)

With Foreword by

Sir Asutosh Mookerjee, C.S.I.



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FOREWORD

The author of these lectures, an ex-soldier, has something to say about the Man-Power problem and presents a side of it that cannot fail to appeal very strongly indeed to all thoughtful people.

He came to work in India at the suggestion of my distinguished fellow countryman Sir Rabindranath Tagore, because he thinks that India must play an important part in developments that we all hope to see when peace is restored. He has made some substantial advance towards carrying out his ideas, and has enlisted the support in various ways of a great many of the most prominent and advanced men in the country.

In commending his suggestions to men of culture at this critical time, I am able to point out that they have been developed in his previous books published in English and in French and reviewed by eminent economists and in leading publications in Europe and in America. Suggestions that have been eulogised by such men as Sir Horace Plunkett as an economist and the late Lord Roberts as a soldier may be confidently recommended in this carefully condensed form for thoughtful consideration. With a view to get them studied in India, I have arranged for the delivery of a series of lectures by him in the Calcutta University as soon as the next session begins.

Even at the present moment, there may be many in Europe and America as well as in India who realise that worse things than the war may happen, if we are not prepared for the problems which will arise after it, and which if not adequately dealt with may result in social troubles more serious perhaps than the war itself. The main interest of these lectures centres round the thesis that if we do one of the best things we can do in the present emergency, we shall do precisely what is best in view of the problems of the immediate future.

1st June, 1918. ASUTOSH MOOKERJEE.

LECTURE I

The Duty of People of Leisure and Education in the Present Crisis.

The war has shown us, as we have never before been shown, what enormous wealth-creating power modern industrial methods have given us, and those who will pay attention to some of the lessons we have learnt, with a view to applying them promptly, will be able to render a service of absolutely priceless value.

People have hardly paused in these days of stress to reflect on the fact that the man-power problem that has occupied us, is nothing but another branch, or more properly, another aspect of the social-economic question of peace time, and to study points of contact between them that are of the very greatest importance in the present emergency.

We have been rather turned aside from studying such questions, under an impression—totally wrong in this case—that it would have been neglecting the questions of the moment.

India has always to think of her economic problems, and we may therefore very properly call upon people in India to give their best attention to this matter, and help to draw the attention of others to it.

As my concern is with the broad aspect of the man-power problem which is the special province of those who study the economic problem taken as a whole, I must invite my hearers to consider first the circumstances under which the social question has ceased to be essentially a class and political question and has become one of man and machine power, and then to see the extremely important light that is thrown on it by studying the two together.

With regard to these questions we have to face first the utterly humiliating fact that whilst for hundreds of years master-minds have worked, and with wonderful success, at improving our means of obtaining everything we need from the soil and the workshop, we have made so little use of the improved methods they have given us that, in every country, the average income is still inadequate.

According to the most cautious economists, well organised and equipped labour has, on a general average, at least four times the productive power that it had a century ago; progress, moreover, by sub-dividing labour and giving us machines to do what formerly needed mechanical skill and muscular strength, has enabled even the feeblest and most unskilled to do their part of the work; therefore if we had made anything approaching adequate use of this immense power, the British Empire, with its teeming millions, would be invincible, and there

would be no such thing now as poverty among people willing to work. But owing, as we have now come to realise, to our exceedingly wasteful methods, and to the limits our capitalist system places on industrial development, all it has done hitherto for us has been to multiply luxuries for a small class and to complicate life very much for every one; whilst poverty has remained about as common as it ever was, and the greater part of the Empire has been able to contribute but little in the time of need.

But the war has opened our eyes, in Great Britain at least, as to what can be done. With about half of the workers taken away for military service, and a very large proportion busily engaged in producing munitions of war, the fraction remaining has been able to do the manufacturing to maintain the highest average standard of comfort that has ever been known in the country, and to keep up an export trade approaching the normal. It is only in latter times that economy of food has been exercised, and for reasons which do not affect this question.

This has all come about as the result of emergency measures, hastily carried out under pressure, and now we must consider seriously how it can be done scientifically, how we can improve on what has been accomplished, and how we can make it permanent. That is the problem for every one of us who is not fully engaged in other ways.

We are apt to mystify such issues as this one by talking about capital. We say we are living on capital, and we speak of waste of capital as a reason to anticipate poverty after the war.

But whether we are living on capital or not is not what concerns us in this connection. What concerns us is that, with half our men away, our workshops are producing this enormous quantity of goods, showing what is our wealth-creating power. Wealth should depend, normally, upon two things only: upon the possession of machinery of production and the power to organise to use it. We have increased our machinery of production, and we have learnt to organise as we never knew before. Our power to produce wealth has been enormously increased, not diminished, and the whole problem of using it is just the very problem of man and machine power that is of paramount importance to-day.

The moment we look at the plain facts we find ourselves asking what can be the economic miracle by which we managed to have any poverty in peace time, when all the workers were free to produce the necessaries of life, and by which we might have it again after the war. And now that we have proved we can rapidly equip people with the extremely costly machinery of destruction, we will ask why we cannot equip them with the machinery of production that would enable them to produce everything we need in abundance, both now and afterwards.

We must evidently give our very best attention to the whole subject, and from every point of view.

We know, of course, quite well, what the answer to such questions is, in general terms: namely, that all depends on our having the money to buy what is produced; as we would put it, if we increased

productive power beyond "effective demand," the result would only be over-production, and poverty consequent on that, instead of abundance.

The real fact, of course, is that we have not yet been able to agree upon a social system under which we would simply produce wealth according to our power to produce it, to use and enjoy it in abundance. The co-operators tried to carry out such a plan, socialists have made suggestions for one, currency reformers have told us how we could simplify exchange and get over the money difficulty, but all their proposals have involved the surrender of some prejudices we could not agree to give up, so that we came finally to say that so long as human nature remains what it is, we must accept our social system with its limitations, and the cruel paradox of poverty by the side of superabundant productive power unused.

But the war has dispelled some of the common illusions our money system has produced. We have seen practically that, when there is ample demand, all can earn plentifully, and there is enough money. All therefore realise to-day what we lose by not having a system that would enable us to use this great power, for we have learnt in every way what man and machine power are now.

Apart, thus, from the problems of the moment, it is quite clear that the war may be followed by events more disastrous than itself if we are not prepared to deal effectively with the questions that will arise after it. For every reason we must all take a broad and intelligent view of the problem of utilising our man and machine power.

There is a limit to the amount of paradox human nature will stand, and the prospect of returning to poverty in peace after the well-being the working classes have enjoyed during the wasting time of war, seems to pass that limit.

The power has been given to the educated classes by circumstances to be the saviours of society by prompt and really intelligent attention to this question of utilising productive power. An immense responsibility is thrown upon us by this fact, and that is what I am going, to the best of my ability, to make clear.

I shall have to deal with the subject from several points of view, so I shall try, by means of an example, to illustrate in general terms the situation we find ourselves in by this fact of the problem, whether we consider it from the point of view of peace or of war, having become a man-power problem, towards the solution of which we can take immediate steps if we will but take the trouble to. An example may help to illustrate how the whole character of the social question has undergone a change.

Let us then imagine a river, low in its bed, passing through a country badly needing irrigation, and engineers applying themselves to raising its level. The rises that might occur as the result of their labours, might be hailed by sanguine people as auguring the dawn of a new era for the country, but if the government of the country failed to make proper arrangements for irrigation canals, and individuals to co-operate for the purpose, these hopes might be disappointed, for then only the few people

who had capital to acquire pumping machinery might benefit. All the triumphs of engineering skill might appear almost vain then, owing to people not agreeing on a system of irrigation for the benefit of all.

That illustrates how it has been hitherto with our increasing productive power, and how the social question has been hitherto essentially a political and class question.

We know, of course, and only too well, why the immense rises of productive power that have been occurring during the last century or so have been vain. Progress cannot do much good to people driven by competition to work for the wage that will buy them the bare necessaries of life. Competition for work has been keeping wages, and therefore demand, down and we have not been using our power, except for the benefit of those who have capital.

But now, how has it been changed from a political question to one of man-power? Let us imagine the water at last reaching the level of the plain. Intelligent people, understanding the situation, would then no longer appeal to governments, or to their fellow countrymen to come to an agreement, but go straight to work and dig out little channels to conduct the water to where it was wanted, and show people practically that it depended now only on themselves to do what was necessary to benefit by it. The last few feet of rise that brought the water to the level that would make irrigation independent of people agreeing on a plan, would remove the stumbling-block and in the terms we are now using we can say that it would cnange

the whole question to one of man-power for people could go straight to work and dig the channels.

We had been shown that already before the war, but we did not take the trouble to apply the lesson.

Let me now put this in the concrete.

In Switzerland an establishment—a labour-colony—producing the principal necessaries for its own workers, has managed, for about twenty years, to produce also a sufficient surplus to pay all expenses, including those of good management and interest on capital; that has come about quite naturally as the consequence of the rise of the productive power of labour.

We have had, thus, an example of a kind of industrial organisation that is practically independent of money, and that can solve great social problems without politics, and simply by using the power modern methods have given us.

If tramps can be given an industrial training, earning it by their labour, people who are not tramps can too; and if anyone who is out of work can go and be trained for some employment, earning his maintenance by helping to produce most of the articles he uses, there will be no such thing as unemployment and everyone will be trained to use good modern methods.

But before passing to a general consideration of this new era in sociology, and to considering it from the point of view of to-day's problems, let us answer a few questions that arise naturally.

Why, it will be asked first, has the Swiss labour-colony been about the only one that has been

economically successful as yet; the answer is quite simple. The Swiss having made vagrancy a penal offence, were able to have, with these industrially incompetent people, a certain number of prisoners of some industrial value, and the manager of the Colony was far-seeing enough to employ also a considerable proportion of good paid workers. That blending rendered it possible to make some use of modern methods, and success resulted.

How, it will then be asked, can tramps earn a living when so many who are not tramps fail?

The answer is quite clear to everyone who knows the difference between the cost of production of articles, produced with the help of modern methods, and their retail prices. In commercial language the ordinary industry must disburse to its workers a sufficient amount of money to enable them to buy what they need at retail rates, whereas this kind of industry, paying them largely with articles it produces itself, disburses to them only the cost of production. It uses powerful modern methods without the wastefulness of modern trade.

No great imagination is needed to see that simply by multiplying such organisations we could let the water out to irrigate the plain. We should be carrying out, only in a slightly different way, the very plan the early co-operators contemplated. I can safely leave the consideration of this in detail to other lectures, and concentrate at present on the question of how we are to start; to dig the little channel, in the terms of my simile, that will lead the water out.

One way at all events to begin is singularly obvious. We have clearly been supine to a degree that does not look even sane in having failed to do long ago for boys to give them a thorough education and training for life, what the Swiss have done successfully for tramps, and that would have led in a singularly direct way to the very root of the problem.

But, as we know our reformers were occupied before the war with more ambitious-looking political plans to utilise our productive power for the workers, so that this simple man power plan roused no enthusiasm.

That is where the intellectuals failed, but now is the time for them to make their failure good.

The war has come and in another manner, but still very effectively indeed, has caused the water, now at the level of the plain, to flow out over the country and irrigate it freely; and but for recent food-shortage the workers, in Great Britain at least, have never been so well off as during the war.

We must clearly do scientifically and permanently what has been done empirically and for one special purpose. If we do not rouse ourselves and have the channels dug ready, so that when the storm passes the waters will not recede, the most serious consequences may follow; and as it is a man and machine power problem there is no kind of excuse for neglecting it or putting it off. All educated people know that everything depends on a suitable first step so I can safely concentrate on that duty in this lecture.

In every way it is clear that the defection of the educated and leisured part of the community at this time might indeed be as bad as the defection of the soldier in battle. There is much loose talk about new eras and great changes, but a moment's thought will show us that we shall now have something of the kind, for better or for worse; perhaps according to whether the people who have education and leisure to think, take the trouble to understand the man-power problem now, and to act intelligently and promptly. Now is their opportunity to serve their country in the time of stress, and doing so, to serve all mankind, for it is such a chance as we have never had before, to adopt practical and useful measures towards solving permanently the problems on which the welfare of the whole of the working classes depends; beginning with an educational reform that evidently will be epoch-making.

But we must be practical; theories will be of no use in the emergency, and, as regards the social question, we have had far too many of them already.

As long as the war lasts, the man-power problem will be the important one, but obviously by an educational organisation of that kind, we could bring together men with knowledge but without limbs, and boys with limbs but without the knowledge, and make these two large, now economically useless classes, a very large and economically useful one.

It would be the best thing in every way for disabled men to make themselves useful. There are perhaps about the right proportion of them now to direct the labour of young boys just old enough

to be economically useful, if working under such direction.

But we will allow the boys to go to this work only when we realise that this educational plan will be adopted permanently, so that anything the boys will lose now will be made up later. However great the emergency, the nation will not consent to sacrifice the education of a generation, and have it growing up illiterate.

What, therefore, is wanted now is to convince people, both by putting the facts before them, and by intelligent demonstration, that we can no longer delay to do for good boys what the Swiss have done successfully for vagabonds, then they will see that they can, without any harm whatever, let boys go to productive work whilst there is such need of labour, even if their lessons are partially suspended for the purpose, because, as soon as normal conditions are restored we shall, by means of this system of education, enable them to continue their schooling up to the required standard, earning the whole time. Then two very large classes will be made economically useful.

It would be enough to convince the Boy Scouts organisation, for the boys to be able to work in existing industries, and on existing farms and in allotments and gardens, in an organised way, under the direction of physically disabled men.

We must use existing machinery, and we have it already in the Boy Scout organisation. I may mention that the Chief Scout, Sir Robert Baden-Powell, the founder of the movement, has written to me

about this plan. We have also the Educational Colonies Association in existence to make the facts known.

What, therefore, we have to do, in order to give limbs to the vast number of disabled men we have, and make them extremely useful, is to do our very best as education reformers, and take this opportunity to drive home the fact that we have here a long overdue measure, neglected through the most unpardonable apathy, and that must be carried out now. Thus we must look at the question as a whole to be useful.

There are large numbers of people who are neither well enough off to be able properly to afford the expenses of education for their children beyond the compulsory schooling, where it is compulsory, nor yet poor enough to be compelled to send them out at once to any kind of work, instructive or uninstructive that they can get, and there is nothing now to meet the demand of that class. An organisation of this kind would supply the demand, that after war conditions might increase very much. It would be a natural and right thing to give boys who had worked during the war, and sacrificed their education by doing so, employment after the war as adult workers in such schools where they would complete their education, earning decently, which their industrial experience would enable them to do.

There is no need therefore to get people even to understand that these establishments could be self-supporting. They could be at first for those boys who could pay something, and meet a demand as a

matter of business. We have no reason to doubt that, once established, they would increase and multiply very rapidly indeed. They have been extending in France and Switzerland, under the name of *fermes-ecoles*, we also shall have to take them up now.

In ordinary times the one difficulty would be that, in starting an organisation of this kind, we should have all the boys coming on one dead level of inexperience, and that would render it much more difficult to make them self-supporting. But now we have the disabled men of all kinds of trades, including agriculture, who would find their best employment directing the labour of the boys, the difficulties are removed, so we can and must start.

Everyone will also appreciate the fact that there is the most crying need of organisations of this kind for technical training. Most people say now that the present system is a failure. It is expensive and consequently pupils are hurried through their course, and leave with a knowledge which is more theoretical than practical. An organisation of that kind in which they would be earning as well would solve the problem. They would be able to have a complete training, gradually learning the practical sides of the work, devoting a part of their day to the theoretical side. Hitherto we have not regarded a combination of earning and learning as being possible, because the pupil must be employed quite differently to learn from what he must be to earn. To learn he must practise a process until he has acquired knowledge of it, and then pass on to another. To earn, on the contrary, the worker must keep to

the one he has learnt. Now, however, that we have seen that we can have an organisation that would save trade expenses, by paying its young workers in kind, we see that we can combine learning and earning, because in an organisation of that sort, pupils would have to spend only half their time at productive work. This has been rendered possible by the extensive application of mechanical process to agriculture. That makes modern farms afford suitable employment and training even to boys who are intended for industrial careers; whilst the farm produces the articles that are most commonly used. This is an educational discovery we have made that is of quite incalculable importance, and must be given the most careful attention to, and now is the time to do it.

At the request of Sir Asutosh Mookerjee, I have put the matter before the University Commission now sitting. It is of the greatest importance in this connection that there is no class of commodities with which the advantages of producing direct for use, and avoiding sending goods through the channels of trade, is so great as with agricultural produce; because its distribution is in most cases costly, owing to its being both bulky and difficult of transport, and perishable. The youths would consume some produce on the spot, and take some home with them, so would be themselves the distributors. The cost of production of these articles is relatively small and, to put it in commercial terms, the boys would save the profits of middlemen and retailers, besides the saving effected by producing with the best methods.

In speaking of an educational organisation that would be at the same time an industrial one, and pay as such, and connecting with it the idea of the industrial utilisation of disabled men, I am introducing something that may seem unfamiliar, and I may appear to be doing it somewhat abruptly, I hope, however, in the course of these lectures, to familiarise my hearers with the idea from every point of view. Meanwhile I must remind them constantly that the Swiss have given us a practical example illustrating the application of the principle, and our war experience has made it quite clear that there is nothing mysterious about their success, and quite evident that we could multiply similar examples.

People must understand all this, and the most timid will see then that we should not be sacrificing the boys' interests by utilising them now as arms and hands to our disabled workers, because we shall certainly have an educational organisation of this kind in which they will be able to make good whatever they will have lost educationally.

This organisation might be started for technical training, and for those whose education had been interrupted during the war, but when once it was started, we should evidently want to give everybody a vocational training in this manner, and then developments of the greatest interest and importance would follow.

After what we have seen during the war, we can no longer profess to doubt that the productive power of labour is now tremendous, and that modern

methods allow us to use the most unskilled workers. Therefore, with an organisation such as this one, that would be entirely free from the commercial difficulties which neutralise the effect of progress in the case of the ordinary commercial concern, children could be given everything that is necessary to make them grow up healthy and strong, and good citizens in every way, and pay for it afterwards by a few years of their well-trained labour in the organisation.

To explain it in another way, the older ones whose elementary schooling was finished, would produce enough for themselves, and for the juniors whose labour had not as yet enough value—that should be noted as illustrating the essentially non-commercial nature of self-supporting education.

The Swiss, again, do it with tramps and vagrants whose labour does not increase in value, the director of their colony has admitted sorrowfully that it is not successful in that respect, we can certainly do it with boys the value of whose labour increases very rapidly indeed.

Then, in truth, a new and better era would begin, one in which the capacities of the rising generations would be developed to the utmost. It is a question only of how long the youths would have to remain after the time when their labour would be valuable, and how long the organisation would be able to admit the children before that time was reached, but we have no need to trouble now with those details.

It would evidently be no hardship at all that, after school years, a lad should for a certain time, bring

home his remuneration in the form of useful articles, whilst he was one member of a family other members of which would earn a money wage; whether he would have to stay in the organisation a longer or a shorter period is therefore quite unimportant.

That is the general principle of self-supporting popular education about which I shall have more to say in this lecture and the next.

Now all this is of special importance both to Britain and to India. It is of absolutely incalculable importance to a nation of town-dwellers like the British. Town conditions are quite unfavourable, in every way, physical and moral, to the proper development of boys. Under this system arrangements would be made for school boys to go to country establishments, on some principle of rotation, so as to spend certain days of the week, or at least certain weeks of the term in them; then we should have no more town-bred weaklings, and no underfed children. The children would at all events be working where the food grows, and where it costs, not money, but only a little labour.

Our modern industrial system, with the minute specialisation that characterises it, renders an educational system of this kind particularly desirable, and indeed quite necessary.

If the boy does not learn versatility whilst in school he will never learn it, and he will be turned by our system into a machine, with very little adaptability. Every boy brought up under this system could become a good colonist, if he failed at home.

Similar training establishments for adults, to solve the problem of our returning soldiers, I shall deal with more fully in another lecture. Other possibilities are opened up, but I shall leave them also for other lectures.

It might be objected here that these organisations would never be able to produce nearly everything their workers required. That is undoubtedly true, but boys working in them would be members of a family, other members of which, presumably, would be earning money, and it would be no hardship to the family if boys brought their pay home in the form of useful articles, even if they did not include everything the family used. As long as we can foresee, it would be sufficient for this organisation to carry on agriculture with the help of good modern methods, and the industries immediately connected with it. Once more, therefore, it is the introduction of mechanical process into agriculture that has rendered possible this plan of education that will give us a new era.

The paid adult workers in these establishments would generally want many things besides what the organisation produced. They would, therefore, need money. But that does not mean that these industries would have a commercial side in any ordinary sense. It means simply that the promoters would buy certain articles of them for cash, to provide them with the necessary money. As they grew and multiplied, however, they would approach nearer and nearer to producing everything for themselves.

Again, I am mentioning these details only by the way, I shall have occasion to return to them later.

It is not essentially necessary to understand them all at the present stage, because, as I have just mentioned, we have no need, at first, to think of these establishments doing any more than modern farming and industries immediately allied to it, and farm produce can be sold easily enough.

We should then very soon do all this not only for boys but also for all adults not doing well in life, to enable them to have any training they want, or any education they are capable of, to fit them for some fresh start, earning it all by their well-organised labour, as in the Swiss Colony. But we must take steps at once, for in that way we can give the help that is wanted now and prepare a decent world for our soldiers when they return, and stave off the danger of their coming back from the war to find social trouble, which is the least we can do for them.

From the social point of view, it is evident that the extension of this system of training, would bring about as complete a revolution as any reasonable person could hope to witness. Employers always tell us that they could offer good pay to competent and well trained workers, and under this system of which the Swiss have given us that brilliant illustration, all could have a good training. They would make no greater sacrifice for it than receiving their remuneration during the period of training in useful articles produced by the training organisation, instead of in cash. Workers, on the other hand, say that they could obtain good wages if only the competition for work were not so keen. This organisation would give an immense amount of employment, it would

be an almost unlimited new field of employment opened up to workers of all sorts. And what greater revolution could we imagine than a system of education in which youths would be kept under the best conditions during the formative period of their lives, when, by proper surroundings, they can be trained to be diligent, and in normal cases, made strong and healthy?

The modern social problem is to use our immense productive power for the benefit of the masses. Here is a way in which it can evidently be done.

The usual objections do not hold in this case, as these establishments would not produce goods for sale, but be equipped with the best modern machinery to enable boys and adult people under training to produce, with the minimum of labour, what they need for themselves. This evidently must be done for all, now the Swiss have shown us that it can be done with the worst people even.

These organisations would be really a co-operative production of necessaries of life for their workers and for the people who supplied the money to equip them, and we must understand them as a kind of co-operation; then we see how immense their social importance would be, and how very important they might become should the war continue long.

The really important and hopeful thing is that we have something infinitely better to do than to call for State action: namely, to dig the little channels ourselves, and my object in these lectures is specially to call attention to that.

Once more, we have to treat the suggestion as for a permanent measure, and for general adoption, if it is to be possible to adopt it to make disabled men and boys useful during the war.

We are, therefore, obliged to take into account that there are many people bitterly opposed to extending the power of the State. I wish therefore to emphasise the fact that organisations of this sort, whether in peace or in war, need not be under the State. They could be started in any way in which any educational or industrial establishment can be started; on the contrary, as I shall show later on, this plan of education is one that would enable us to emancipate popular education entirely from the State if it is really desirable to do so.

Many will ask, then, where the capital would come from for these establishments? During the war, of course, the boys could be employed in existing industries and on farms, allotments and gardens, but, again, we have to consider the problem from the after-war point of view.

My hearers are not all economists, so I will dwell for a moment on the enormous difference between providing workers with machinery of production to produce the principal necessaries of life for themselves, and equipping an industry for commercial competition, so that they shall not think that cost might render the extension of the plan impossible after the war.

First of all we must realise that machinery of production is, properly speaking, extremely cheap, because, if fully used, it very soon produces goods of

its own value. To express this very important fact in another way, a machine or a suitable group of machines will very soon indeed produce another one similar to themselves, so that machinery is like an animal that propagates itself very quickly, and grows up quickly, and is therefore cheap, and our war-time experiences have made it easier for us to realise this. If, therefore, we understand these organisations rightly, as industries producing a variety of articles useful to those who provided the money to buy the machinery, we see that the latter might very soon get back the full value of their money in kind.

But with the commercial concern, in ordinary times, the difficulty is to secure the constant volume of trade that will keep the machinery working to the full, so that it may pay for itself.

For that it must have, besides the machinery of production, a very costly machinery of commerce. Now there is always the risk that the industry may fail to get the amount of trade that will enable it to work at a profit. If it fails, this unsubstantial element in capitalisation, the money spent on securing markets vanishes, so to speak, into thin air, whilst the substantial element, the machinery, suffers depreciation also. Those are the conditions, the conditions of trade competition, under which capitalisation is an expensive matter. But they do not exist in the case of industries producing the main necessaries of life to supply the needs of workers joining for training, and for the promoters.

They would produce all the articles everybody uses constantly, so supplying them with the money

to equip themselves would not be capitalising in the sense in which we generally understand it, but paying in advance for some useful goods; and there would be the immense advantage that when the order had been carried out the interest on it might continue.

But now we come to another point that is of the greatest possible importance. The larger an organisation using modern methods, the more productive it makes the labour of every worker it employs, because the better it can subdivide labour, and the more efficient methods it is able to use.

With the commercial industry the advantage may quite well be neutralised by the fact that the larger it grows, the greater difficulties it may have to dispose of enough produce to make its increased establishment pay; the commercial industry may ruin itself by extending. The educational organisation, however, that would simply give what it produced to those working and learning, and sell a small proportion of it to supporters, would have the immense advantage of growing, without the disadvantages. As it grew, therefore, it would enjoy a constantly accelerated increase of production, giving it a surplus that might be used for extension.

In that way the seed, once sown, would be able to propagate itself at an increasing rate, as a prolific plant will if its seedlings are taken care of.

We have thus only to start, we have to dig the little channel, to return to my first simile, and everything we can foresee favours rapid development, and nothing that we can foresee stands in the way of it.

These prospects opened up by what the Swiss have been doing for many years, now confirmed by what we have experienced during these years of war, are quite enough to contemplate for the present, so if we will start such organisations we can help in the best way to win the war, and make the world a better place after it.

Another difficulty with the ordinary commercial industry is that of the management. Great ability is required to steer skilfully through the various difficulties competition places in the way of the commercial concern, but no such difficulties would arise in the case of these educational-industrial organisations producing for use, not for sale.

All that would be required with them would be, so to speak, to keep the machinery oiled and working smoothly. Once we had started them we should have a number working like so many pieces of clock-work all ticking together—which we cannot have in the commercial world, because of the irregularities caused by trade difficulties—and results could be compared and tabulated in every detail. Instead of the rivalry there is with the ordinary industrial concern, which makes the promoters keep things secret from each-other, promoters of these industries would have every interest in comparing results systematically, so that none would be able to diverge in the slightest degree from normal working without the fact being at once apparent. A dishonest or incompetent manager might cause temporary loss, but he would be found out immediately. To return to our simile any bad wheel would be promptly replaced by a sound one, and the

clock-work would go on, doing its useful service. Let it be noted that there would be the keenest competition between these industries, induced by the fact that results would be visible to all, but that would be a wholly beneficial kind of competition.

We have evolved machinery that turns out goods of standard patterns and so dispenses with manual skill. But wholesale production using it has created such immensely difficult commercial conditions, through the keen competition it has given rise to, that it requires extraordinary managing skill. But this is a kind of industry in which we can standardise the management too, and dispense with individual managing skill, as we have with the manual. It seems to remove the last difficulty in the way of abundant production, because, being also an essentially co-operative system, it is independent of commercial demand and of "capital."

If we are asked the question why, then, the thing has not been done for purely business reasons, the answer is perfectly plain. It is only with a number of such industries, comparing results, that all difficulties of skilled management would disappear.

Their strength, again, would lie in the fact that each would have, at its entire disposal, the whole experience of every other that had preceded it, or was working with it. The advantage would not be enjoyed by the pioneer ones.

In starting there would perhaps be additional risks, because of the novelty of the enterprise, so people will not venture. That is an all-sufficient answer to the question.

Starting for educational purposes, however, overcomes these initial difficulties, because people would then be interested in these establishments, for their enormous social and educational value, and quite prepared to run them at a loss at first. Everybody who cared actively about the welfare of youths, and of the workers generally, would see that they were properly managed, not for the benefit of any one's pockets, but for the sake of the immense social and educational improvements they would bring about, and they would be patient and helpful in a way people are not in the case of a commercial concern.

It is not my intention here to generalise, I am leaving that for another lecture, I am trying to deal in the most practical way with the things that want doing now, but let me mention just in passing how extremely interesting this new kind of industry is, as an industry, and particularly perhaps, to India.

But it is important to note that there is nothing fundamentally new about the idea, it is merely the economic principle of co-operative production applied in a new way that we see to be possible now that we have come to realise that productive power is sufficient for a reasonable-sized organisation of this kind to produce, not only enough for its workers, but also a surplus to pay the cost of good management.

It is a development of co-operation which the greater productive power we have now has rendered possible; co-operative working under capitalist management, combining the strength of the two systems, and which can make tramps self-supporting.

But whilst the war lasts it will be the organisation for boys that will interest us, that will enable us to make good use of partly disabled men, though in India, as I shall show in another lecture, we might advantageously have it at once for other adults also. The first steps we can take towards that are the very simplest that could be imagined, but we must not let the simplicity and lack of the heroic about our great duty dull our sense of responsibility.

We have no need to contemplate great schools of a new sort springing up, and a system of education evolved suddenly, by which boys would spend part of their time in productive work and part in school. We must look to the future for that but it will not come at once.

To recapitulate there are a few simple facts to understand, and we can then see our way to developments that will make as much difference in their sphere as the railway and steam made in that of transport, or the telegraph in that of inter-communication and to rendering great help now.

We must understand thoroughly, from the after-war point of view, the essential characteristics of such industries; that is our spade-work, our "little bit" in the present crisis. We must realise specially the important difference between capitalisation as the financier understands it, and providing machinery of production. Then we can understand that, though it is true that the system would not have its full advantage just at the first, it would still have very great advantages.

The commercial industry is comparable to a man walking near a precipice, so that if he wanders far

off the path he will fall over and perish. It is intended for profit only, so that if its balance falls on the wrong side, and remains there too long, complete ruin is the result, and the capital is lost. And not only does it walk in that position of danger, but there are plenty of people, its competitors, anxious to push it over the precipice. Those acquainted with the methods of competition know only too well that they resort to deliberately conceived plans to do that. But these instructional industries would be like a man with nothing more dangerous by his side than the sloping beach, because profit would be part only of their object. They might get their balance on the wrong side and still be kept going because of their social utility. Plenty of people would be willing to subscribe towards guaranteeing interest on the sum spent on machinery and equipment until the initial difficulties had been got over, and the industries paid their way. Not only, therefore, would they have only a sloping beach by their side, but they would have numerous friends ready to rush to their help the moment they got ever so little into the water.

The conditions of an organisation producing necessaries for use instead of goods for sale are so entirely different, in every way, from those of the commercial concern we are used to, that it is not at first quite easy for us to understand them.

But we have the example before us of what the Swiss have done and the conclusion is quite inevitable: that we must do for boys what they have done for tramps and our war experience has removed every shadow of doubt as to whether we could do it.

In India another plan suggests itself for a first start which also might be a very useful contribution towards winning the war.

One of the most serious problems of the country is that of finding suitable employment for the young men of the middle classes, whose social prejudices add greatly to the difficulty of the question.

There are a number, however, who would be glad to start small industries, and who have guardians who would be willing to provide them with a little capital for a start, but the great difficulty is the risk that is involved when inexperienced young men have money entrusted to them for commercial purposes, for even though they may find more experienced partners, the partners may turn out unsatisfactory.

One of the great needs of the country at the present time is to give young men starting in this way the opportunity to start together in some locality suitable in every respect, with experts to instruct and control them, and see that their capital is used in such a manner that it will yield them a living, and, at the same time, that they shall gain the necessary knowledge and practical experience.

The experts could be retired engineers and other technicists, who would be glad to live in "colonies" of this kind, situated in suitable localities, and, for very moderate remuneration in addition to their pension, to give the young beginners their advice and help. Again we have the machinery ready, the Indian Polytechnic Association which, though just started, has the support of many of the most prominent men in India, was conceived for that purpose.

By organising this now we should enlist capital, perhaps abundantly, and the ripe experience of the retired men, to produce the munitions of war and other manufactured articles of which there is so great need at the present time, enabling India both to help to win the war, and take the fullest possible advantage of the present unexampled opportunity for extension of her industrial enterprise.

India is called upon to contribute men and money; this is a way in which individuals might contribute it readily, in their own interest, and with perhaps, incalculable good to their country.

This start also might lead to endless possibilities, including the solution of the problem of secondary and popular education, and ample employment for all the middle classes. When a few such "colonies" had been successfully established, there would be no difficulty about multiplying them as co-operative industries such as I have been describing in this lecture.

Boys from all "recognised" secondary schools ultimately, and all graduates aspiring to science degrees, might go in rotation to spend some time in them, continuing their studies whilst learning some practical work, and perhaps earning. This suggestion also is included in the report I have placed before the University Commission at the request of Sir Asutosh Mookerjee.

Similar organisations, situated, one perhaps in every district, might furnish a perfectly good solution to India's problem of popular education. It is still a question whether the Indian villagers

can always afford to let their children go to school. Under this system, when they were old enough to leave their homes, they would be able to go to establishments of this kind, and be employed there producing something useful in their homes, with the help of modern methods, and receiving some elementary schooling. There is an enormous difference between the productive power of labour using modern methods, and that using the methods of the Indian villages. It would be very easy indeed, therefore, for boys working in such organisations say from 15 to 17, on a system of rotation, so as to be about half the time in the establishments and half at home—making up about one year net in the establishments—to produce enough to pay for schooling, and to compensate for their spending a few hours a day in school from their childhood upwards. Parents could receive this compensation from the beginning.

In India, as everywhere else, if we have failed to use our productive power for any other good purpose, we can, and must, use it for education.

If we base ourselves on what we see in the commercial world all this appears impossible; but what we have to do in order to help, is to apply ourselves to understanding clearly why the commercial world is no guide for us because we should produce for use not for sale.

Productive power has increased enormously, as all economists testify, and the war has shown us now, in the most sensational manner, how tremendous the increase has been, it has shown us also to

what an extent these new methods allow us to utilise unskilled labour. If difficulties of exchange, money difficulties as we would put it popularly, stand in the way of our using that power generally, we can use it to give boys a thorough training and enable their well-trained labour, to produce what the next lot of juniors would consume during their period of training and so make the system self-supporting, and we evidently must do it.

Producing for sale is an entirely different matter, for then the power is lost in friction to a very large extent, and also the difficulty of capitalisation comes in.

The facts, again, are all simple enough, but the difficulty remains that our minds are laden with sophistry based upon false comparisons between the competitive system and a co-operative system of production; that sophistry is what we have to overcome, wonderfully helped by the lessons the war has given us.

If we are to rise to this great occasion, the first thing is to make the intellectual effort to be quite clear about things as they stand to-day and to see why the social question and the man-power question now coincide; also how, by studying them together, we can see our way to making not one but many great, but now unproductive classes productive, and removing our anxiety about after-war problems.

We must also understand that a plan of this kind has nothing to do with what is popularly called socialism, with extending the powers and activities of the State, and that, as a matter of fact, if it is

really desirable to restrict the powers of the State within still narrower limits than now, this is the way in which it could be done. It is very important to understand that this plan is the only one known, that would allow popular education to be entirely emancipated from the State if it were necessary to do so.

Finally we must not make false comparisons between those organisations and the attempts co-operators made. They would not be started by idealists like those who started co-operative colonies, with plans of universal brotherhood and schemes for making industries self-contained. They would be under the ordinary form of control and management, and produce just as large a variety of articles as it was economically advantageous to produce. We must understand clearly that the object, at first, would be to produce for use, and so save trade expenses, not to carry out any ideal of self-contained organisations. We must, however, bear in mind that, though the plainest-living man uses, at some time of his life, an enormous variety of articles, produced by people in a correspondingly enormous number of trades, yet the great bulk of the ordinary man's pay is spent on things that are produced by people in just a few occupations, agriculture being very important indeed among them, so that in practice these organisations would soon approach to being self-contained. That is the simple explanation of the success the Swiss have attained.

It is not very difficult, and it is certainly exceedingly interesting to understand all these things that show what magnificent use we could

make of our immense productive power for education, and what services we might render by starting now.

If only we will take that amount of trouble, and act on a correct understanding, we have such an opportunity as has occurred but rarely in the whole course of history to do immense good. These are great times, and men of education and leisure have a great duty to civilisation too, whilst their sons and brothers are giving their lives for it on the battlefield.

Never was there a more urgent call, and if we fail we shall fail as conspicuously as a soldier who deserts.

There is every reason for India to respond splendidly to this call, because Indians are not so sophisticated on the social question as people of western countries, and by responding to it, they would solve the problems that are recognised as the most important for India's welfare and progress, whilst rendering possibly the very greatest service to humanity, to the Allies, and to the Empire.

LECTURE II

Socialism: its Truth and its Great Error.

If we were living in ordinary times, and had only the social question to consider, and in the ordinary way, I might have been well-advised in stopping at the end of my first lecture, for after many disappointments, we have at last seen a way in which we really can use our productive power to do immense good to the masses, namely, to give them a splendid educational system so rationally, we should concentrate our whole attention upon it; in my practical work I have been doing so.

But we are not living in ordinary times, but in times demanding that we should act with great promptitude, and in such a manner that what we do shall have the very greatest, the most far-reaching, and also the most permanent effect. We must, therefore, understand thoroughly and from every point of view, this question of utilising man and machine power.

When a question has been so much discussed as this one has and when so many suggestions have been made for its solution, it is often best to go past all the arguments and plans, and back to the fundamental facts.

Let me then answer fully those familiar questions; why, with the productive power of labour at least four times as great as it was a century ago, we have had poverty; and secondly, why, with all kinds of

labour-saving machinery to help us, we have had strenuous times; thirdly why socialism is spreading; in answering them we shall review all the main facts of the man-power problem in its widest aspect.

The primitive community gives us an example of a rational economic system. It sets people to work, as a matter of course, to produce something for the common good; it knows of no such thing as unemployment, except as a privilege. As a matter of course also it provides everyone with the best machinery and methods it can, because the more it produces the more there is to share among its members, and the more labour-saving machinery it uses the more leisure there is for them. It knows of no such thing as "over-production;" if its productive power ever proved to be excessive in any department it would immediately direct it to some channel where it would be useful, and have more variety of wealth.

The primitive community knows nothing either of the difficulty of capital, that we make our excuse for not using all the splendid means of production that are now invented. Whenever it invented some new machinery, it would immediately put off some of its less important work to make that machinery, so that production from that time would be more abundant.

The conditions of the primitive community are, in fact, the economically rational ones, whatever may be its other faults and disadvantages, and therefore it is free from paradoxes, though it may contain injustices.

Primitive people, who had a way of looking upon industrial progress as being of the devil, would

have no doubt about it if they could see us as we are now, fearing labour-saving machinery sometimes more than machinery of destruction, and fearing that when the years of destruction are over, we shall be confronted with an acute poverty problem !

But the very first thing democracy always does when it begins to assert itself is to abolish that simple economic system, because it involves control by the community over the activities and property of individuals. Democracy wants every man to work where he chooses, and himself to own what he produces, unless, voluntarily, he works for a wage, so it abolishes this central control, and then individualism arises.

Thus we must understand first that individualism, whatever our personal opinion about it may be, is not a system, properly speaking, but society with central control deliberately left out in the interest of individual liberty. The motto of individualism of the Manchester School is *laissez faire* : leave things alone ; sacrifice organisation for the sake of freedom. Latterly people have added the new argument that central control is not practically possible with our complicated modern system, but that is an afterthought that has been rather exploded by the war.

But now the democracy has changed its mind again, the Manchester School is discredited, and the workers are favouring socialism, simply a return to the old plan of central organisation, only under democratic control.

Why exactly is this ?

The normal plan, of course, is to make productive power rule demand—which is the simple common

sense of cutting the coat according to the cloth, and that is what the primitive community does by setting all to produce as much as they can and dividing the total. But immediately we abolish central control productive power is ruled by demand. We have things topsy turvy and then anomalies arise. We have people determining in some way or other, or having determined for them in some way by the community, what remuneration they will demand, or income they will enjoy, and practically our productive power, however great it may be potentially, can be developed only to satisfy that demand. The coat is then designed arbitrarily, and not cut according to the available cloth.

But the inversion of the natural order did not matter very much at first whilst productive power was relatively small and therefore had to be used nearly to the full. It is as progress increased our power that the abnormality of making production depend on an arbitrarily fixed demand began to matter seriously. Then we found demand lagging behind power to supply, competition consequently becoming too keen, and unemployment and other anomalies arising. Thus then our troubles have arisen, and there has been a change of attitude towards individualism.

It is all very simple. The competitive system, the tendency of which is to make workers give their labour for approximately the remuneration that will purchase what they regard as the necessaries of life, may do quite well as long as productive power suffices only to produce necessaries, but gets increasingly out of order as productive power increases much beyond that.

It is quite clear, therefore, that we must not allow ourselves to be hampered by any political bias, and must concede something to the socialistic tendency of the day as there is a mathematical reason for it.

It is important to understand all this thoroughly so I shall go into the matter in some detail.

In other words, then, in the civilised community labour and production are subdivided, so the articles a person produces, or the skill he has acquired, have value to him, generally speaking, only if he can have in exchange for them what he wants from others, so production is one half only of the battle.

When central organisation is abolished, and individuals are acting separately, in order to exchange, they must sell their goods or get somebody to hire their services. Exchange depends therefore on their finding people whose demands need satisfying, so too much power of production is fatal. It stops exchange.

This is the very curious feature of our present-day individualism—which, however, we have got now to take quite as a matter of course—that too much wealth-producing power results in poverty. Any production beyond demand is "over production," and has fatal results—exchange then does not work.

Productive power, as we know, has now increased enormously and the balance has been upset.

Demand and power to supply have long been in a chronic state of not corresponding with each other, with the result of cut-throat competition, over-production, and unemployment, and (in times of peace of course) the workers not being sure of a living.

/ Labour-saving machinery, similarly, causes over-work, because, under these conditions, with workers competing keenly for an insufficient amount of work, some accept employment on hard terms. In that way the "leisure" the machinery gives gets thrust upon others, taking then the unwelcome form of unemployment.

Thus we can have poverty from over-abundance, because there is then too much competition to sell and for work, as well as from the natural cause of scarcity, too much competition to buy, and overwork for some people from work being scarce. The result of the community being too lightly burdened, of insufficient work, is that individuals are heavily burdened, because, they cannot get work on fair terms.

Little wonder, if they have had enough now of production without central organisation and are clamouring for anything rather than the chaos it creates!

These are the "economic miracles" by which we might have hard conditions after the war, with perhaps twice as many people to produce wealth and do the work as we have now. They are really astounding paradoxes, very remarkable "economic miracles"; but familiarity with them has made us take them as a matter of course. With demand not equal to power to supply we have two effects of power, one normal and one anti-normal acting in just the opposite direction to the normal, and the workers suffer very much from one anti-normal effect: unemployment.

Individualism is no longer now the system of liberty, and only too truly deserves its reproach of

being wage-slavery. It gives us progress no doubt, the workers in industrially advanced countries are better off materially than those in primitive ones, for the simple reason that increased productive power tends to increase demand. But unfortunately there are also tendencies in the opposite direction. When there is excessive productive power, and therefore when people ought to be demanding more pay, there is keen competition, as a result of which they work for less, so we have not a state of affairs in any direct way righting itself, and people are saying that it must be ended.

That is the situation we are confronted with now and have to deal with; that is how we have had poverty and strenuous times with productive power much greater than is necessary to produce all we really require.

The whole difficulty of capitalisation, the result of which is that our better methods are used only to a very limited extent, arises, of course, from this inadequacy of demand ; in other words excessive competition.

Owing to these anomalies whole continents have mainly suffered from the backwash of progress, the anti-normal effect, from the competition that ruins many small industries. That is why India is asking now for industrial development, wishing naturally to enjoy some more of the good, after having endured so much of the evil.

But we should be just as much hampered in our practical usefulness if we gave way to the political bias in favour of socialism, because we should then arouse great prejudice.

Industrial systems are for mankind, not mankind for industrial systems, and it is quite evident that mankind prizes liberty more than economic efficiency, and we are not yet sure we cannot combine them.

It sounds very well on the socialist platform to speak of individualism as being anarchy, because it is society with central organisation of production deliberately left out; as a wasteful system, because it involves all the overlapping and waste that arise from competition; as a system of grab, because under it some work little and get huge shares and others toil hard and get little; and as a system of wage-slavery. But we must remember that these evils are not inherent in it, but have arisen under latter-day conditions, with power to supply far above the total demand—under individualism worked loose in its bearings. With ample demand the laws of supply and demand would distribute people in the employment in which they were wanted, and there would be no anarchy; nor would there be cut-throat competition and, therefore, exploitation of labour and wage-slavery. All this too the war has shown us, with the immense demand it has created. It is not necessary to sweep individualism away if only we can find some rational and permanent means of making demand increase with power to supply.

But the co-operators told us about a century ago that there is a perfectly simple way of doing this, and it is just on the lines on which we must go to-day to render service in the present crisis.

Their idea was to get those who see the faults of individualism to establish an industrial organisation in

which productive power will rule demand, instead of the developed productive power depending on demand. The co-operative communities they proposed were to be simply communities on that, the rational plan.

Obviously, if we had only a section of the community organised in that way, with its workers having the remuneration that our modern methods allow, instead of the competition wage, they would set the pace in the matter of remuneration, the rest would demand the same pay, the total demand would be kept equal to power to supply, and individualism would not work loose in its bearings.

Without attaining that ideal, if only a section of the community worked on the co-operative principle, it would withdraw a number of people from competitive employment, and wages would be sent up, that is to say demand would be increased.

Everyone knows the co-operators were right in saying that the whole problem could be solved thus.

Socialists are on perfectly safe grounds when they say that it would be theoretically better to organise the whole community on the economically correct principle of productive power ruling; but, again, there is nothing more useless than mere economic theory, and it certainly will not help us in the present crisis.

In common sense too we should do what the co-operators proposed; we should try first with those who want the change—now with the junior part of the population, organising them on the economically correct plan, to give them a thorough training and make them useful at once—and leave those who are satisfied with individualism alone.

Now we come to another thing that is extremely important to understand correctly. The question arises how such an apparently insane notion as that of commencing socialism with the whole community at once can have entered into anybody's head at any time.

Some apology is perhaps needed here for dwelling so long on the mere theory of the subject, whilst candidly admitting its small interest, but my hearers will soon see that I am doing it for some purpose, and that we are here in the presence of one of the strangest, and at the same time one of the most fatally mischevious errors that have ever deluded mankind and hindered progress. We cannot take too much pains to eradicate it, because it creates great prejudice against better systems of organisation and stands ever in the way of useful measures. At all events we must not let it mislead us now.

The modern social question is one of equipping the workers to use the splendid means of production at our disposal, with the help of which they would be able to produce necessaries for themselves abundantly; that is to say it is a man and machine power problem ; but the old was an entirely different one: it was a question of the public taking possession of existing wealth to use it for the common good; that, of course, would have necessitated applying the principle to everyone from the first.

Now the old idea still persists, for one reason because people have become attached to the literature of the old social question as to a religion, and it is hard for them to make up their minds that it is now out of date and has to be scrapped.

Circumstances also help powerfully to keep up the illusion that the social question is still fundamentally a matter of redistributing wealth. Clever and fortunate individuals, fishing in the troubled waters of our individualism that is working now very irrationally, make enormous hauls, far larger than any one would earn by his fair labour in an organisation using its productive power to the full. People looking at this fact are easily deluded with the old idea that we must overthrow the classes and take possession of the wealth now in the hands of individuals, and then all make the fresh start together on the new and better plan.

A review of the failure of these different social schemes shows at once how we stand now.

When, again, productive power became much greater than sufficed to provide the necessaries of life, and our individualistic system, which tends strongly to make the masses give their labour for the remuneration that will purchase necessaries, began consequently to work loose in its bearings, the co-operators called upon those who saw how things had got out of joint to form themselves into communities in which they would receive a share, made as large as possible by using productive power to the full, and not the irrational competition wage; that is to say, again, in which demand would be ruled by productive power, and not productive power by demand.

But this simple economic system requires that all should pull together as one man. The primitive communities that worked under it were under some kind of strong management, either theocratic, autocratic or

patriarchal; but the co-operators wanted to combine the ideals of democracy with the plan. It soon became apparent, however, that human nature is not yet ripe for that. One of two things always happened: Either dissensions arose, and the communities broke up, or they gave up producing necessaries for themselves, taking a shorter cut to wealth by entering into competition with other industries to supply the market with articles, and then they "reverted to type," as the biologists say. Thus co-operation took the shape in which we see it now, which is excellent in its way, but does not furnish us the kind of industrial organisation in which productive power is always used to the full, and people have a share of a total output made as large as possible, instead of an arbitrary competition wage, and there is no unemployment.

On the failure of co-operation, socialism arose saying simply that as voluntary effort had been unsuccessful, the plan must be carried out compulsorily, and the State must organise the whole community on the principle of productive power ruling, and workers having a share-wage. But Utopian ideas were put forward. Some wanted all the shares to be equal, and the fatal misapprehension I have just described made them think it was really necessary to organise the whole community at once on the new system.

But people could not agree as to the desirability or the practicability of putting everything under the State, so socialism has not been able to go to the true goal any more than co-operation has, and has been shunted on to the same siding. That is to say it is contenting itself with advocating public ownership of

various kinds of enterprise with a view to securing the profit they yield to the public, and managing them in the interests of the public, leaving the problem of the community using its productive power to the full, and giving its workers the full remuneration that modern methods render possible, and abolishing unemployment still unsolved.

What has happened is only what was bound to happen. When our present system began to show its faults, idealists were the first to perceive it, and the plans they formed were the plans of idealists, and fared as such plans always do in this world of differences of opinion and compromises. The co-operators' plan was perfect in its reasonableness, and the socialists' in its theoretical conception. Mankind, however, tolerant though it may be of every kind of imperfection, is absolutely intolerant of perfection in any form, and the theoretically perfect systems have not been adopted; the co-operators had too much faith in the reasonableness of human nature, the socialists too much faith in their power to think out an economically perfect plan and then make all mankind fit itself into it. And despite everything, there remain sturdy advocates of individualism which, after all, by giving energetic people the opportunity to win great prizes, has proved itself the system of progress. Scientific thought leads us to socialism but human instincts to individualism. The share-wage system is perfect in theory, but would people ever be satisfied with their allotted shares?

Thus it is quite clear from every point of view what we have to do now that the idealists have

tried and failed: namely, try their plan of production for the use of the producers but organised without the democratised management, or of socialism, but just for those who want it, and without the confiscations and impossible equality.

The difficulties we foresee with the share-wage system disappear if people have the alternative of working in an individualistic system.

But, unfortunatly when ideas have been associated in our mind for a certain time we get them tied together by a kind of mental red-tape. It happened that the co-operators who suggested centrally organised production established voluntarily, proposed a commonwealth with a certain democratic system of management, and that the socialists who proposed to have it established by the State, proposed also that it should be made compulsory on everyone, and mixed up with their plan certain schemes for confiscation of property, and for equality of shares. The result is we have now got those ideas tied up with the idea of centrally organised production of necessaries for the use of the workers, as though they were inseparable from it. When we think of it, it appears incredibly absurd, but we know well that when a suggestion is made for a plan of production for the producers that is not to be applied to the whole community, the tendency is to declare it to be " the idea the co-operators tried but found impossible," and whenever a proposal is made for a plan being put in to execution under control of the State, people immediately put forward all the objections against compelling everybody to be State employees, and protest about the

injustice and hardship of confiscation, or talk about the impossibility of giving equal remuneration to all. This ridiculous mental red-tape, binding us fast, has hitherto prevented our taking the perfectly simple and rational course.

But we have now the right medicine for this mental aberration that might well be fatal. It is contact with the simple fundamental facts, and with a national emergency demanding us to rouse ourselves and take some practical steps towards better utilisation of our productive power.

It is humiliating no doubt, but the answer to the question what we are to do to utilise our immense productive power is simply, Cut this mental red-tape, and then establish production of articles for the use of the producers, socialism as it could be called if it were is organised by the State, for boys and for people under training, and for those who want it, leaving the rest alone. Our hope is that the war will help us to cut it and put an end to unmerited poverty.

It seems an insult to human intelligence to say that to solve the "master problem" as some call it, all we have to do is to free our minds from such absurdity.

But is not everything in connection with this failure to use our immense productive power utterly humiliating?

From every point of view, thus, people of education are called upon with a clarion-call to do their duty in understanding a new situation that has arisen, and making the facts known. This is their day, this

is their chance and their duty, and no condemnation will be too severe for them if they are so slothful as to fail in this duty to civilisation, whilst of their fellow-men are giving their lives on the battle-field in its cause, and when, by understanding they might help them both now and after the war is over. It is quite evident that ignorance, if allowed to remain, may lead to the most fatal consequences after the war.

We must get entirely rid of that fearful confusion of thought that cannot recognise clearly whether the social question is one of distributing existing wealth or creating new; whether it is a political question or a man-power problem.

In the past, when productive power was a fraction of what it is now, and was used very much more nearly to its full extent, the wealth in the hands of the rich was of importance. Now however that demand has lagged far behind the power to supply, and we are using only a fraction of our productive power, the fraction of that fraction that privileged classes have laid a claim to is no longer worth troubling about, and social reformers are concerned with a totally different problem of utilising productive power properly.

The old social question was one of class war, whilst the modern one involves nothing of the kind, so to mix the old ideas with the new is as mischievous and as foolish as anything could possibly be.

The opponent of socialism has also his hobby he rides blindly, and to death; his is "capital" which he professes to believe must always place a limit to the

utilisation of our productive power; whilst really it is only a difficulty that arises in the state of enomomic muddle in which progress has two effects, one normal and one anti-normal; but, tied by his particular mental red-tape, he has come to look upon it as the only possible state of affairs.

The other important thing, therefore, for us to understand is that the whole of the difficulty of capitalisation arises with commercial industries from the competition that comes when articles are produced *for sale*, and causes the power to be lost in friction; and that the friction disappears in the case of industries producing articles for the use of their own workers, such as training organisations, which do not enter into competition, and on which progress has therefore only the single effect, the normal one.

By reason of the fact that the larger an organisation using modern methods, the more productive it makes the labour it employs, these organisations, once well started, could become self-capitalising and extend thus at a constantly increasing rate; I repeat this because it is of the greatest importance, specially, perhaps, at the present time.

In commerce, to recapitulate, capital has generally to be sunk on the simply commercial side of an industry, and risks have to be incurred, whilst profits are uncertain.

But organisations like educational ones, producing gocds for their own workers, do not enter into *that kind of* competition, and require only machinery of production that would soon turn out something useful for those who supplied the money to buy it,

and pay them back. They would produce to their full capacity to make the workers' and promoters' shares as large as possible, and to extend as much as possible.

When we get rid of both the false notions, the socialism that advocates compulsion, and that people have felt all along to be something preposterous, ceases to be a mirage to draw our attention away from practical and sensible things, because it simply collapses like a house of cards.

Socialists want production organised by the State; but what is the State? It is nothing but a number of individuals in possession of a certain amount of wealth and power to organise. When we understand correctly, we see that socialists could form themselves into a state to carry out their own ideas, without compelling any one else; as, indeed, the co-operators have been telling us all along. But the co-operators too have had their hobby, and must get rid of it before they can succeed; and our duty to humanity at the present critical time is to understand all this and then, turning to practical measures, we shall be able to render services of absolutely priceless value.

It is perfectly obvious that, to establish socialism, socialists are not called upon to leave their employment and embark on experiments in socialistic production, but to begin with their children, and with people wanting training, and, in the present crisis, with boys and disabled men directing their labour.

Later, when this socialistic organisation had been put on a solid foundation, people in remunerative

occupations would be able to venture to join it, then, of course, as working members.

By then it would be a power in the State, able to see that it was not in any way boycotted as regards the things for which it would depend on the rest of the community.

Even people burdened with families would not be excluded from joining, because arrangements could be made so that whilst a man was learning a new trade, and his labour was of little value, his wife might do productive work also, the domestic work being done in an organised way, the cooking in central kitchens, young children looked after in crèches and kindergartens, and this might continue till he had contributed his share of the equipment, if he wished to remain.

But people should also be free to realise their capital and go away and try their fortune in the individualistic world.

If only we will start with boys there will be no unemployment to fear after the war.

The socialists outside this socialistic organisation would help best at first by remaining in their employment and purchasing certain goods from it to supply it with the money it would require to buy what it could not produce itself. Now we have seen that our productive power is sufficient to enable us to make a start in the manner that gets over the initial difficulties that have wrecked all the attempts that have been made hitherto, and that we could clearly render eminent service by taking steps now, it is indeed time for socialists to

cut the mental red-tape, stop agitating for all to begin together, and start putting their idea into practice for the benefit of their children.

Again I am not concerning myself at all with the question of whether the whole would work through to programme or not. No one could say that with any certainty. What concerns us is that the first steps could be of the very greatest utility now, also that a very large and increasing party wants to try the great experiment of socialism, and we must insist in season and out of season, on the fact that there is no need to begin by overthrowing the present system, as it can be done by carrying out an educational programme that is obviously desirable, and now is the time to try—unless the socialists' idea is that, because socialism is theoretically sound, it should be forced on everyone. But, under modern conditions, that would be the idea of monomaniacs, and all sane people would resist it as such.

Socialism is a matter of taste and of discipline; of getting people to be satisfied with their allotted shares. We can discipline boys, also, perhaps, people who are in difficulty and who want training and help. We shall therefore have to begin with them, and see practically how much further we can go. Let us, then, start at once in the way that would be so useful now.

It seems quite clear that when future ages look back on the socialism of to-day, losing sight in the distance of the peculiar conditions that have made it what it is, they will regard it as one of the strangest phenomena that have ever appeared among men; with

socialists talking eternally, instead of setting to work to apply the principle to the junior portion of the population, and to the people who want socialism, leaving those who do not want it alone.* In sheer insanity it will seem to them to be matched only by our individualistic system, under which we make production depend upon demand, whilst we vie with each other, by competing with each other, to demand as little as possible for our labour; only hitherto remedies have been suggested so tactlessly and in a form so distasteful to the majority that we have preferred to endure the evil.

We have tolerated all this in an absent-minded way hitherto, but the days for absent-mindedness are gone; moreover the workers are now like a tiger that has tasted blood. The war has shown practically what they might have, and what our present system deprives them of, and we must prepare now for safe experiments with other and saner systems; but above all we must do promptly what can be done in that direction, not only to be useful now, but also because arguing will not be much good in the crisis that is likely to come after the war.

If we contemplate State action there might be some reason for demanding that the organisation for boys should be under the State.

All children should be able to have everything that is necessary for their proper development from the very beginning; including, for town children, stays in the country. Parents should be quite

*The Educational Colonies Association (3 Victoria St. Westminster, London S. W.) has long been urging this.

free to pay or not. When they did not, the children when trained would have to remain a longer period in the organisation, receiving their remuneration in kind instead of in cash, until their debt to the State was paid. That would mean only that they would give up for a number of years the doubtful blessing of "money to handle," receiving their remuneration in useful articles. In exchange for giving up the doubtful advantage for a few years, they would have the priceless boon of the best care during the formative period of their lives.

In this way poor parents would be partly relieved of providing for their children's material needs, and would be able to use their money to give them more refined and comfortable homes, which is next in importance to good food; whilst vicious parents would have their children taken away from them altogether and kept in these establishments.

But parents who disliked the State organisations should be free to send their children to organisations independent of the State that would give them training of the same value.

The State might help very usefully indeed at the outset especially to utilise the labour of the boys in the present crisis.

The town boys would, of course, go in some rotation to the educational-industrial establishments in the country, so as not to be taken away from their homes, and it might be well to provide a certain amount of industrial work for the elder ones during the periods when they were at home. The State could make arrangements with private firms for them

to work certain hours with them, on some system of shifts, and pay the educational organisation in kind for their labour, in articles useful to it, and to the boys' parents, at a fair cost of production, and at trade prices if they were firms of merchants. With a shift system, well organised, employers would know which boys they would get in succession. Under this plan, it will be seen that the boys would work on the socialistic principle, having its economic advantage, but using the machinery of the individualistic system. The war has so familiarised us with the plan of utilising individualistic machinery for public purposes, that it is conceivable that this might be done at the start. The State might also make firms do the same thing for educational establishments organised by private individuals. To encourage the boys to work well, the firms might give them some extra remuneration as a gratuity, introducing thus a useful individualistic element.

If we are inclined to look ahead of present-day problems, we can foresee great after-war developments in connection with the problem of our returning soldiers.

Another very obvious way of applying the principle of socialism after the war is to the Army, to reduce military expenditure to a fraction of what it used to be.

In peace time the Army is nothing but a part of our educational system, and it is quite obvious that it could be made part of this self-supporting organisation.

I made the suggestion some years ago, when, after many years study of the proposal, the late Lord

Roberts gave his approval to it, as did also all the eminent military men who studied it. It would involve many changes in the army system, all of which, they agreed, would be beneficial. But opposition was feared then from labour organisations.

In the first place, boys could receive a military training whilst in the industrial-educational establishments. The State would thus give them their training at the very minimum cost. This does not put us face to face with the question of conscientious objectors, because we might have some non-military educational establishments of the kind.

With these organisations, a question would arise to what extent Britain would need a separate professional army, except for service abroad. We should then have a system of national training, voluntary or compulsory according to what the nation decided. Assuming, however, for a moment, that we shall have again after the war an army similar to that which we had before it, we should, under this educational system, have men trained in some industrial work, we should be able to pass them rapidly through their military drill—six months is considered by experts to be sufficient—and then employ them very much as the Royal Engineers are employed now: doing military exercises during certain seasons of the year and productive work during the remainder.

The Swiss have shown us one sensible application of the principle of state socialism, there are others that have been approved by thoughtful people, and if we are to try socialism we must experiment with them.

The Army is as hopeful, perhaps, as education. We need not trouble ourselves about whether there would be any difficulty about combining the training and the productive work. They could perfectly well be given in entirely separate periods.

The army organisation and the educational organisation, between them, would be able to produce nearly everything to supply ordinary every-day needs, and so approach pretty nearly to being self-contained.

Every step would make another one easier, so that we could go on, and find out naturally and practically, the limits of the application of socialism.

Socialists say that people ought to be able to have the various products of labour, and pay for them by an equivalent amount of their own labour, given in some direction in which it is wanted.

Now we know that modern methods allow a man to work usefully in a great variety of different kinds of productive employment, we may hope that something of the kind may prove possible, at least to relieve unemployment.

An organisation like the educational and military one would be able to let people, conforming of course to its rules, have what they needed from it, giving an equivalent amount of their labour in some workshops or establishments connected with it. The more people there are working in an organisation producing necessaries for the producers, on the co-operative plan, the better, of course, for all of them.

It would not be necessary even for people to work actually in the workshops of the organisation.

They could make contracts with it to produce certain articles for it, receiving its various produce in exchange. The rest of their time they might work for trade. Any firm might make an arrangement to produce something for the organisation, receiving in payment, vouchers exchangeable for its different produce, which those of its workers who wished could take as a portion of their pay. This organisation would then become a clearing-house for exchanges between different industries, taking in the slack of the individualistic world, by supplementing ordinary trade by a co-operative exchange; thus we should have this idea of the socialists' carried out without violence to the present system. There are many ways in which it might be done, and I shall have occasion to say more about them in my other lectures.

After the experience we have had during the war, many will be inclined to think that this particular application of socialism might be practically possible to a considerable extent, and very useful.

But I will again remind my hearers that I am not attempting to advocate these plans, but merely, as about half the workers in Europe and America are socialists, to show that all they have in view can be approached gradually and tentatively, and without violent changes, and that if they will do the most useful thing they could do now, they will be paving the way towards it.

The truth, once more, is that no one can tell what would succeed and what would not, but socialism in some form will have to be tried, probably soon after the war, so those who make known the ways in which

it has actually been applied successfully, or proposed and approved by people of all shades of thought, and by which it can be tried without violence to any one, may prove to be the greatest benefactors of humanity. But, again, to act promptly in the matter is the one important thing; a practical lead in some really hopeful direction is our only chance of controlling the forces that will come into operation, and so it is that we have the same duty in view both of war and after-war problems. It is impossible to insist too much on this. The future of our civilisation may depend on whether people who have education and leisure will rouse themselves now; in time and do what is necessary before the storm breaks.

There is an idea among anti-socialists that if we start socialism at all, it will attain the mastery and we shall become the slaves of a socialist state. But all our experience shows that there is too little fear of its attaining such success. New social orders are for ever being worked out on paper, but in actual practice we always come back very much to the same conditions: namely, to those which human nature dictates. I have outlined above what has been suggested and dinned into people's ears for pretty nearly a century now. Numerous attempts have been made to carry it out, but the educational attempt is the only one that has attained success.

Discipline, again, is the great difficulty.

We can discipline our children and youths, to make them work under those conditions, but in the case of adults we are not sure. For that reason

there is such a wide gulf between theory and practice in connection with the social question generally. We must concentrate our whole energies on the one application that clearly is possible; for the Swiss experiment can safely be said to be good proof of the immediate possibility of the educational application.

If we fail to make our productive power do good to the workers, at least in that way in which it evidently can, extremists may get into power and try to carry out drastic measures. The only plan for us, from every point of view, is to do what can be done, and then people will see in actual practice where the limits of the practical application of socialism are reached, and extremists will be silenced; and that is also how we can help at once.

With the immense productive power we now possess, we have no reason whatever to fear a socialist tyranny under any orderly application of socialism.

Supposing that socialism ever enabled the workers to earn much more than individualism could, and carried all before it, there would then be a perfectly simple means of escape for everybody who did not want to be harnessed to the chariot of the State. On that assumption people would be earning well, and able to save--saving would be possible under that system—and then it would be open to them to set up their own little industries, producing something by arrangement with the socialistic State, in exchange for its various produce. These individuals, or groups of individuals, would be able to make exchanges among themselves, so that

an individualistic system would come into existence for those who wanted it.

If we do the reasonable things, we shall not have to fear a socialist tyranny, but if we fail to do them we may have it, under the workers in revolt.

Another commonly expressed fear is that such measures, by increasing wages, would render the countries that adopted them unable to compete in the world's markets. This, however, is a vain fear: for one thing as soon as one country begins to utilise its productive power for the good of the workers, all will follow, and all will be in the same condition.

Fancies may carry us anywhere; we must keep to the facts.

The central fact is that the masses, tired before the war of the system under which we make production depend upon demand, whilst we compete with one another and underbid one another to make demand as small as possible, have now seen by sensational illustrations how inefficient this absurd system really is, and how effectively the State can interfere to increase production. Socialism, thus, strong before the war, has received a great impetus. In the circumstances there is only one sensible course for us, and that is to find out the lines of least resistance along which the coming socialistic forces may act, and give a practical lead on those lines, and if the educated people fail to do this it will be the most criminal negligence and folly on their part, independently of the fact that giving the lead would be organising man-power and so helping to win the war.

LECTURE III

Co-operation—its Great Strength and the Error that prevented its solving the Problem.

If we want to be in time to do something useful in the present crisis, to utilise our man and machine power to the fullest possible extent, and in such a manner that we shall solve once and for all the problems of unmerited poverty and unemployment, we must first, of course, understand what precisely is the economic strength of the kind of organisation we have been considering in the last two lectures, also why the co-operators failed when they tried to establish it, and we must not only understand all this clearly, but must know also exactly how to answer every question we shall be asked about it, and especially by the majority of people who will look at things from an individualistic standpoint.

It is not an exaggeration to say that the social economic question puts us in presence of some of the strangest facts in the history of mankind, the most curious errors have been allowed to obscure the simplest issues, and to paralyse action; but there is nothing connected with it stranger than the way in which the co-operators set out in the right direction to solve the whole problem of utilising our productive power for the good of the masses, fell into the crudest errors, failed in consequence,

and then went off at a tangent, instead of learning by their mistakes and trying again in a rational way.

Co-operation has done such splendid work on its tangent that nearly everyone will be surprised, and not a few indignant, at hearing the word 'failure' used in connection with it. But really no failure, could be more dramatic than a movement started to solve the problem of poverty, ending by getting people to combine to reduce their shopping expenses, and obtain certain advantages in their sales and other transactions.

As we are required now to do the thing that the co-operators planned originally, but failed to do, it is necessary that we should be prepared to answer some very close questioning as to how exactly our method of procedure would differ from theirs.

Recapitulating, then, there are properly two social systems. One is individualism under which things are left to individuals, and which really is the absence of system, but has stout advocates, because people say that any other plan would put an end to personal freedom ; the other is that in which the community makes efficient arrangements for the production of what its members require, equipping them in the best way to produce as much as possible in the hours devoted to work, and shares the total, made as large as possible, among those who have contributed towards making it. Carried out in a truly democratic way, this plan would be one under which any person would work as many hours a day as he wanted, or as few, and have for his reward a

portion of the total produce of the labour of the community, in whatever goods he wanted, of value equivalent to that of his own labour contribution. It is the basis of all the plans suggested by socialists and co-operators, though they add various features to it according to their different fancies. It is the plan which can use productive power to the full. Communists also would work practically on that plan, only they would have no system of sharing produce, but would let everybody take according to his needs.

But we are told that when the co-operators tried to carry it out they failed, because human nature failed; because people were not altruistic enough.

As, however, it was a matter of establishing a system, there was no fundamental necessity for moral questions or altruism to have entered at all. We must understand exactly how the co-operators managed to drag them in.

They were idealists, and thought of starting in a way in which the whole community might join, and then some altruism, or at least public-spiritedness, is required in connection with the system.

Without it the educated people would say that too much brain work was required of them in exchange for products of mere labour, and the workers would say that too much hard toil was required of them to satisfy the demands of those whose work was easy and pleasant, and endless trouble might arise through people imagining that the value of their particular services was underrated.

But the early co-operators, hoping that mankind would rise to the occasion and become altruistic,

inclined rather towards advocating equal shares for all, as the solution of the whole difficulty, and never dreamt of such a thing as confining their system, even for a start, to a training organisations, in connection with which this difficulty would not arise.

We, on the other hand, should start with a training organisation, and that is the fundamental difference.

Whilst they endeavoured, both at once, to establish centrally organised production, and to form an industrial republic based on the principles of brotherhood, to carry it out we should be satisfied at first with the former, under the ordinary management we have with other educational and training establishments.

Their ideals were beautiful, but in too great haste to realise them they went two steps at a time instead of one and failed in consequence. The socialist's particular hobby had something also to do with their failure. They too imagined that social reform was a matter of saving wealth that goes now to the rich; they fancied that an essential part of the plan was to "relieve the workers of the burden" of profits, rents, interest and wages of organisation.

Having those ideas, it never occurred to them to begin with an organisation managed like any ordinary industry, but working on the better economic system, so when they failed, instead of making a fresh start, in that way, and going one step at a time instead of two, they were easily drawn away by the mirage of socialism, that promised to settle all these questions together, but only to be led into the wilderness.

And that is where we find ourselves now, with poverty in every country, despite enormous productive power, waiting still for a solution of the problem of establishing an organisation that will use our immense productive power finally to abolish all want.

There was, however, some excuse for the early pioneers of co-operation having complicated their experiment, and brought it to failure by going two steps at a time, because they had not seen an example of an industry working on the economic principle they advocate, but managed like an ordinary business.

But we have seen one now, and see also that it is the very organisation we want in view of present-day problems; and one thing I shall deal with specially in this lecture, is the way in which this first step would lead to the attainment of the co-operator's ideal as a second step.

First let us recapitulate the immense changes, amounting to a complete revolution, that have taken place in connection with this great question of utilising our productive power, and that inspired the co-operators with such extraordinary enthusiasm, and with a degree of confidence also that made them reckless of practical difficulties.

It is without exception as important knowledge as we could possibly apply ourselves to acquiring; it is certainly one of the most interesting of studies as well as the most hope-inspiring because it shows us that, unless some calamity befalls us, we are on the eve of the abolition of all unmerited poverty; only

there is danger of a calamity, both social and national, if the educated classes fail to do their duty in making the modern facts known.

First, then, enormous increases of the productive power of labour made the social question cease to be one of class-war. They made it a matter, not of seizing existing wealth in the hands of a privileged class, and distributing it among all classes, but of producing new wealth for the benefit of the masses. With that change came another just as fundamental.

When reform becomes a matter, not of political action, but of constructive work, it ceases to depend on the ill-formed masses that constitute the majority of the electorate. The well-informed minority then become able to lead.

No wonder, that with such changes as those the co-operators, thought that they had only to go straight forward and garner the fruit of the labour of inventors, and abolish poverty. Everything, indeed, seemed to have been made exactly as they could have wished it to be ; all that was crooked seemed to have been made straight for them.

But there remained, unfortunately, a weak point : They conceived it to be necessary to establish their idealistic co-operative commonwealths to put their plan into practice. But the very best of the workers were wanted for such commonwealths, and the best are not available for sociological experiments. Even when they are idealists they generally have families depending upon them and cannot launch out on ventures of that kind. They are generally doing well in the individualistic world.

Thus their hopes were not realised because they got quite the wrong kind of men for the pioneering work.

But this difficulty has gone now. We have had a very remarkable practical demonstration of the fact that productive power has reached the level which renders it possible to take people wanting training, and even the misfits of the individualistic world and, with them, to build the foundation of the co-operative organisation. With the last difficulty gone we have a remarkable closing of ranks to go forward. We join the whole phalanx of philanthropists and educationalists. Hitherto philanthropists and social reformers have formed two mutually distrusting camps, looking upon each other, on the one hand as visionaries, and on the other as mere workers of patch-work. Now they must work together. The modern educational organisation would be at the same time the first step towards the establishment of co-operative production, and in addition, just what is wanted for every object that philanthropists are working for.

From the latter point of view we see at once that it would help some of the best and most deserving of those who are in difficulty under the present conditions; workers burdened with large families, and anxious about their welfare, widows and families whose bread-winners had met with some misfortune. These organisations having the economic advantages of the co-operative system, but without its impossible idealism, could give them as well as their children the advantages of a cheap and abundant supply of the necessaries of life.

It would be the very best thing for many such parents to work as adult workers—of whom large numbers would be needed—in those establishments. There, in exchange for their labour, they would have, together with a little money, the main necessaries of life in abundance, and healthy surroundings for their children, and opportunities for them also to do some profitable work under the very best conditions; all, in fact, that they want most.

When the parents themselves were not able to do any suitable work in connection with the establishment, they would at least be able to enjoy the economic advantages, and their children would have the opportunity of earning whilst learning.

Similar organisations would also obviously provide just what is wanted to give employment under suitable conditions, climatic and otherwise, to people suffering from, or threatened with, some physical ailment like phthisis, or having a member of their family threatened with it; also for people suffering from every kind of moral weakness like inebriety, for ex-prisoners and all such cases.

The latter would be in separate establishments, but they would form part of the same organisation of co-operative production, and size is strength with an organisation producing necessaries co-operatively, so when we had begun it would be easy to go on, and every step would make the next one easier.

From every point of view, it is impossible to overestimate the importance and hopefulness of this change which has made the first steps in a plan to

utilise our productive power properly, man power and philanthropic measures at the same time, and of the greatest importance as such.

There is no need for us to discuss now whether we must concentrate on war problems, or on after-war ones, or whether or not we should continue to work for this or that plan of social reform, or worthy philanthropic object.

We have now the one key to the solution of all these problems, and what we all have to do is to make ourselves thoroughly acquainted with the facts, so as to be able to use the key promptly and effectively, and then whilst doing our particular work in the best way, we shall be laying the foundation of the more efficient economic system, based on co-operation, that we all realise now to be necessary.

Human nature was the difficulty. Man's waywardness. The co-operators came at once in contact with that difficulty, because, to succeed, they had to induce the *best* to come out of their *employment* and join their experiment, and they failed to do that. But now we can invite *those who are in difficulties* to come out of their *unemployment* and join our training organisation. That, of course, makes the whole difference.

Now what is the real strength of an organisation working on the co-operative principle? Everything now depends on our being absolutely clear about that.

It is that under it, owing to proper organisation, the bulk of the workers can be set to work, and with good machinery and methods, to do really useful things.

The various articles we use and consume are all materials taken originally from the soil, and transformed by a series of processes until they become finished articles. If all the processes are done with the help of good modern methods, the total labour is extremely small, so an organised community, helped by modern methods, would have an extremely easy task to provide itself with necessaries.

But then why do people have to work so hard for a living?

It is because under individualism all do not work productively, articles in every stage of their evolution change hands, and every change is accompanied by some profit or commission to pay to somebody, which means that the larger proportion are engaged in making profits out of these numerous changes of hands; employed in trade as the defenders of the system put it euphemistically.

Thus even in the most advanced countries, a small proportion only of the workers are employed in producing useful articles, helped by the best methods, many are more or less ill-equipped, many do work which is not productive at all, but which our trade system requires, or else produce articles required by our trade system, but which are not strictly useful, and there is an appreciable proportion of unemployed, and a more considerable proportion of people who, owing to the competition in their particular line, are far from being fully employed. That is its weakness. That is the waste that matters. Interests, rents and wages of organisation are mere trifles in comparison,

and it is nothing but a great absurdity to attach importance to them.

All, then, that is wanted is to get this co-operative system working somehow, producing just the main necessaries, we certainly can do it with boys, and with numerous other classes, once established for one purpose it would extend, and I shall go in this lecture into the question of how it could extend.

But the important thing is to be sure of our first step, to understand thoroughly why boys in an organisation of this kind would be able to earn their maintenance by a short day's work, and so be trained free of cost. That is our spade-work, the work we are called upon to do in the present crisis, if we are to be immediately useful.

Properly speaking there is no comparison to be made between a centrally organised community in which ninety per cent. of the workers would be well equipped, and engaged in doing productive work, and perhaps ten per cent. in distribution, and individualism, under which we may have ten per cent. well equipped for productive work, 30 per cent. indifferently equipped, and the greater part engaged in what is called exchange, but is really wasteful commercial warfare, and ten per cent. partly employed or unemployed.

But people have seen the individualistic system working, whereas they have not seen the organised, so they will compare the two, even though it be unscientific.

Some will ask us how we can pretend that educational organisations employing a large proportion

of boys, instead of experienced men, producing a variety of articles, instead of concentrating on producing one kind, that is to say, industries working under every possible disadvantage, would pay their boy workers at a rate the best industries cannot do, and be immune from the ordinary risks. The best equipped industries, they will say, can often do no more than pay a living wage to their workers, and a fair interest to their promoters, and must take their chance of succeeding or failing according to the ability with which they are managed. Some will be indignant and scornful in their criticism.

Their objection, and the fallacies on which it is based, form really a museum of curious errors people fall into when they compare the two systems, but as part of our spade-work we must be acquainted with that museum and all its contents.

First, and obviously, if it were really true, as those objectors imply, that industries using the best modern methods could not do more, on an average, than yield a living wage to their workers, and a fair profit to their promoters, there would have been no industrial progress at all, the objection therefore at once reduces itself to absurdity.

The fact, of course, is that a large industry is well-equipped to produce goods very economically when it can obtain large orders and in sufficient quantities to pay its great establishment expenses. Its total earnings, depend on balance between periods during which it is working at a profit, and others when, owing to keen competition, it has not sufficiently large orders, and is consequently working at a loss. There

are therefore some indications as to the wisdom or lack of it, among investors, but not of the productive power of labour using modern methods, and therefore of the real wage modern methods would allow the worker to have.

The whole objection, which may look plausible and practical, is quite senseless, because commercial industries are pitted against each other in the battle of competition, and any one however strong may fail, altogether or partly, in competition with a stronger one. Each system has its difficulties and its risks to encounter, but they are different ones, and, as regards the respective rewards they can give their workers, and the risk they run, there is no point of comparison between them.

We can no more compare them than we can compare the great Dreadnaught in action with the little trawler engaged in catching fish, and the prize-money of the man-of-war's men with the hauls of the fishermen.

The above answer is really complete, but we must leave nothing unexamined in connection with this question because, when we understand it thoroughly, we see our way to solving permanently the education problem, and putting an end to all unmerited poverty. Let us, therefore, make ourselves acquainted with the whole contents of this museum of errors as I have termed it.

To continue then: In our social system, in which we live by mutual exchanges, the material well-being of every worker depends on the average efficiency of the equipment of the whole community;

that of the particular industry he is employed in has really nothing to do with it. So again the comparison does not hold.

Workers producing steel may use all the latest scientific methods, whilst people producing vegetables may work with the primitive spade. But the steel workers buy vegetables, and the vegetable producers buy steel, at the price their earnings allow them to pay, so remuneration is averaged out ; a man whose capital is engaged in the vegetable trade may do as well as one whose capital is engaged in the steel trade, and in both industries the workers work for the wage determined by competition.

Now, owing to the facts we have just been considering, the average efficiency in the individualistic system is low, because only a small proportion of the total are working really usefully and really well-equipped.

Then, again, a very great deal of what is said about successful commercial industries paying little interest is merely delusive. By a financial manipulation called watering shares, the original shareholders in successful concerns often capitalise the profit and take it off, capitalised, in a lump. That is to say, if an industry yields 10 per cent. interest, each of its shares may be made into two of face-value of a hundred each, and sold to purchasers willing to invest money at 5 per cent. interest. Declared dividends, therefore, are often not a reliable guide as to the real earning of commercial concerns, and therefore of the wages they might pay their workers, and this, again, vitiates the comparison.

Thirdly, as I have already pointed out, even if the shares are not "watered," commercial industries are, in any case, burdened with capitalisation. That is to say that owing to competition, a large amount of their money has been spent in opening up markets. They nearly all suffer, at least in that way, from the anti-normal effect great productive power has on industries producing for sale. When by some chance they escape it, their promoters make colossal fortunes, and then show us, in a very striking way, what the wealth-creating power of modern methods is.

The comparison, in a word, is quite false and only misleading on every point.

But when we turn from the ways in which no comparison can be made, to those in which we can compare, we find the whole advantage on the side of the industries paying in kind.

The fact we have to bear in mind is that presumably industries of that kind would be, at first, for boys, for disabled men with pensions, and for people under training, so they would not need to produce any great variety of articles. The boys might make their contributions to their homes mainly in food-stuffs. The physically disabled men, working with the boys, would have their pension-money coming in to enable them to make their miscellaneous purchases. As for adults under training, not coming under the latter category, these industries, producing everything people use most of, would be able very easily to sell some produce to have the money to pay a small proportion of their wages in cash.

As I pointed out in the last lecture, we have no need really to contemplate these organisations doing anything more than agriculture at first, and the industries immediately connected with it, which are quite numerous under modern conditions.

Now the ordinary necessaries of life are generally produced in rather primitive industries, so that our first reply to critics is that, as a matter of fact, the boot is on the other leg; these establishments would be better equipped than the average commercial concerns doing the same kinds of work, not less well; in India they would be immeasurably better equipped.

The Swiss labour-colony pays, and there is no mystery about its success; it is simply and sufficiently explained by the fact that its organisation allows it to use good modern methods—which other labour-colonies are not able to do—and it is quite plain that similiar organisations employing rational human beings would be able to give them, not only a training, but a start in life after it.

Everybody who knows anything of business realises what good wages industries would be able to pay if they were kept working to the full, and had no trade expenses. That is the position with these industries paying their workers in kind.

All of this can be understood by a proper comparison with the ordinary industry. Every economist knows of instances in which industries having large orders on hand have paid their workers at rates some times double the ordinary ones for an output above the normal, and fifty per cent. extra pay for overtime

is a usual rate. Industries, of course, pay these wages because they leave them some profit. Ordinary industries, however, have to make comparatively large profits on some at least of their transactions, to pay for these losses and trade expenses we have been considering. The training industries would not be burdened with them, so could pay the bigger rate in every case—in kind of course.

Apart from that, we are well on the safe side in saying that, on a general average, the retail prices of ordinary articles are over fifty per cent. above the cost of producing them in a good organisation. Two increases of fifty per cent. each give something over double, so we arrive at once even on this very rough calculation, based on common observation, and erring on the side of safety, at fact that these workers, remunerated largely with goods they were producing themselves, would be able to have goods of twice the value of those that the ordinary worker's wage will buy. That is to say, they would be able to earn a living with half a day's work whilst being trained, and, when trained, by working all day, they would be able very quickly to earn money for a start, individualistic or co-operative according to their personal bias. Education and an opportunity for a start together solve the problem. We can, therefore, get to work at once to do away with unmerited poverty. As soon, that is to say, as people can be got to realise it, and to understand the difference between capitalising and providing machinery of production.

These also are the facts we must make known so that people will see at once that we can put boys

to productive work now, and their labour and that of the disabled men combined could become an important factor in winning the war; and, instead of sacrificing the boys' interests, and bringing up an illiterate generation, we should be doing the very best thing for them, and in the interest of really good education. Numbers are on the side of the Allies, organisation will tell in their favour powerfully.

From the point of view of employment we must look at these industries as a form of co-operative enterprise, only more akin than most forms of it to the familiar kinds of commercial concern; they would be co-operation between capitalists and workers to produce articles useful to both.

The workers could have the whole of their pay credited to them nominally in cash, but they would be able to obtain everything produced by the industry itself at the wholesale price, so that, for the sake of cheapness, as well as of convenience, they would buy a considerable proportion of their articles from it.

Share-holders could also have their interest credited to them in cash, and for exactly the same reason they would buy articles from the organisation, and so practically take their interest in kind. They would be able easily also to buy some things for money, to supply the organisation with it for its cash payments.

We must bear in mind what exactly are the weaknesses of our present system, and how such organisations would have the economic strength

of co-operation, and be able in consequence to solve employment and poverty problems.

The fundamental weakness of individualism, once more, is that under it people produce only to the extent to which they can sell what they produce, and work only to the extent to which they can obtain hire for their labour. There is thus a limitation placed at once upon production. From this arises also the whole difficulty of capitalisation in the individualistic concern.

An industries of this kind would not be subject to these limitations, so would be able to use productive power to the full.

It would be an organisation to which the workers would come to produce articles useful to themselves for themselves, and something over and above for the firm. The more they produced for themselves, the better it would be for themselves, and the more they produced for the shareholders the better it would be for them, and these industries would be self-capitalising in the way I have already described in the previous lectures.

We can imagine an industry of this kind, growing and using better methods, producing more food-stuffs than its workers and promoters wanted to take from it. It would then set some workers to produce something else which they did want. It would thus transmute food into other commodities.

Supposing, therefore, that these industries were not established by the State for the public good, but by private individuals, to get as large an interest in kind as possible, that also would solve the problem.

Altruism is not necessary. If only they succeeded they would extend rapidly, as they would be a kind of industry that avoids the ordinary trade difficulties and difficulties of capitalisation, the result would be an enormous demand for labour, which would send wages up, and solve the problem in that simple way.

What is wanted is to establish somehow a system that will utilise our immense productive power to the full, then, one way or the other, it will solve the problem, and if in no better way, it will solve it by making it such a profitable affair to employ labour, that the workers will command a good wage. If the wage is large enough to enable them to save to make an independent start the whole problem will be solved, for there will be no impassable barrier then between capital and labour.

Another very important thing to understand is that it is simply ignorance to label certain kinds of enterprise co-operative, contrasting them with individualistic enterprise, as though the two were separate elements that, like oil and water, cannot mix.

As a matter of fact they are, in every instance, so mixed that definitions are very arbitrary indeed. When a small number of people join in a co-operative group it is termed a partnership, but the co-operative colony is nothing more nor less than a very large partnership, producing a variety of articles; the difference between the ordinary thing and the "Utopian" is only in size.

Again we define the Co-operative Wholesale as a co-operative enterprise, and the joint-stock company as individualistic. But there is hardly any difference

between them, as a matter of fact they are both co-operative and both capitalist. The joint-stock company is a co-operative organisation of capitalists, nothing more nor less, and the Co-operative Wholesale is an organisation of small capitalists, with slightly different rules.

Similarly the training organisations that I have spoken of as a new kind of co-operation, I might just as well have spoken of as a new kind of joint-stock company, only producing a greater variety of articles than the ordinary one. But whichever we choose to call it, this new kind of industry has features which are of the greatest possible importance because it would be the stepping stone to the establishment of co-operation.

The customers of organisations that, like the Army and Navy, and Civil Service Stores, sell a great variety of goods, deposit money, and their deposit credit is as good as cash to them, as the stores stock a great variety of articles they are sure to want. In the same way, any individual, partnership or firm, would be able to supply goods to these training organisations, accepting payment in the form of deposit credit, because they would be sure to want some of the articles produced by them. These organisations would, thus, be able to do a considerable amount of co-operative trading. Firms might pay their workers a portion of their pay with the credit cheques of such an organisation, which they might be quite glad to have to exchange for useful articles of good quality.

Then, obviously, like a rolling snowball, this organisation would gather strength as it proceeded.

It might produce only a variety of food-stuffs at first, but might make co-operative exchanges, in that manner with, for instance, iron works and pottery works, so that it would come to include iron-ware and pottery on its list and then it would be a "clearing-house" for co-operative exchanges between the iron works and the pottery works, which evidently could not make direct exchanges themselves.

This production for use, non-commercial production, may seem to be something new, and what is new people have a way of making up their minds beforehand "will never work." As a matter of fact, however, about one half of the human race, the female half, is mainly engaged in that way in every country. The women produce for the home, thereby adding to its wealth by direct labour, which has nothing to do with commerce. Under this plan we should have people producing articles for the home in an organised way instead of unorganised, that is absolutely all that is new about the idea of co-operative production for use.

Now I come to one of the points in connection with the social question that we must specially fix our attention upon, because of its one of the essential differences between the modern social question and that of the past.

People want two things of a social system: that it shall give bread and freedom to develop along the lines of their tastes and inclinations. But one person's social ideal is often hateful to another. The old social reformers, unfortunately, had their ideal and plans for bread mixed; they put forward their schemes to

solve both problems. But that was fatal. People want a plan that they feel sure of, to give them bread, and not one whose recommendation is that is on the lines of some other person's tastes and inclinations, so there was no possibility of coming to an agreement with two such things as those mixed.

The mechanical organisation I have been describing is able, with the help of modern methods, to give bread; and people would earn a surplus, and so after they were trained, would be able to make a start for themselves, and then have the opportunity to follow their natural aspirations.

It is because productive power is sufficient now to do the latter as well as the former that it really gives a solution. We can now have a plan to give people bread that professes only to be that, and not to be one for their permanent adoption. It is only a stepping stone that they would tread, and, from it, go in whatever direction their inclination carried them. That is the only plan that can possibly work, because tastes and inclinations are infinitely varied.

When, therefore, we talk about plans of co-operation, and other systems of labour organisation, we do it now in a way quite different from that in which the old social reformer did. We look at those plans merely with a platonic interest to see in what direction people might try to follow their personal aspirations. We are not concerned to argue that they would succeed as the old social reformers were.

But it is evident that this merely mechanical organisation would be a very effective stepping stone towards the attainment of the co-operators ideal.

Accomplished facts and existing tendencies, not theoretical possibilities, interest us in connection with the social question. Let us, then, look at things from that point of view.

Idealism, again, plays an enormously important part in human affairs, and it is not practical, but exceedingly foolish to ignore it. Few things are more interesting than the study of the attempts that have been made to carry out the ideal cherished by the co-operators, of work on fraternal terms, instead of those of master and man of employer and employee.

But the co-operative colonies which were started to carry out that idea were like a long human chain, the links of which were the various individuals, or groups of individuals, producing the different necessaries of life, that failed if any one of the numerous links gave way, and that happened invariably.

But the new kind of industry exemplified by these training establishments removes the difficulty over which the co-operators stumbled. Once more the co-operative colony is nothing but a large partnership and failed because it was too large. With an industry of this kind in existence, groups of manageable size, not attempting to produce a greater variety of articles that they could economically, would produce somethings for themselves, and some for the big organisation, in exchange for which they would have its various produce. In that way the "links" would be attached, each one separately, to a solid block so that they would not be dependent upon each other.

There would be a number of articles that even the large organisation would not be able to produce. But as all the workers are the co-operators' friends, because they do not compete with any one, all would be ready to buy something from those groups to supply them with the money they needed. There is no half-heartedness about the support given by the workers to genuine co-operators.

The co-operators would not fail to see that this plan would enable them to advance rapidly towards the attainment of their ideal. These various co-operative groups could make exchanges among themselves, and then they would be carrying out fully the idea of the co-operative colony.

Then, to revert to our simile, we should have the links joining up among themselves, forming the chain as originally conceived, *but wound round a solid block, to which each link would also be attached separately, so that the failure of any one would not involve others with it.* When we had an organisation of that kind, not even the members of "link" that had failed would be stranded. They would be able to join the big organisation, and, if they wished, make over their plant to it on some mutually arranged terms. The workers in the big organisation would be able, at any time, to detach themselves from it, and make a separate start, to become links, instead of a part of the block, and so, of course, would these workers when they had grouped themselves afresh to try again.

The fundamental principle, once more, is that when we have an organisation of this kind there will

be bread and butter for everybody, and, as modern methods allow all to produce enough to put some money by, all would be able also to try any plans they wished to, and the co-operators would be able to make tentative efforts towards attaining their particular ideal.

All, then, we need to ask is that the State, or the socialists, or someone, should build the block, and it seems evident that the block should be an educational organisation.

It is obvious that the enthusiasts for co-operation would also be able to own the central organisation, the block as I have called it, and organise it according to their own ideas.

They would then have two elements in their organisation and that would evidently give it security.

They might fail, and then there would be a general collapse. But when once we had organisations of this kind, nobody with limbs, and who was willing to work, would be left in want whatever happened. It is of particular interest at the present time, that the very best work for physically disabled men would be in such co-operative groups. In ordinary life they would be in a sad position, but there they would be extremely useful. They would have their pension to make up for what work they could not do themselves, and a little money coming in is just what such groups would want most ; evidently men who have fought together would love to unite after the war in this voluntary comradeship.

There are also a number of people who, for purely practical reasons, would wish to work in an

organisation of this kind. There are large numbers whose value in the ordinary labour-market is almost nothing, because they have no particular skill and have prejudices that prevent their doing ordinary labour, but who possess some small capital. Very often indeed these people either embark on some little enterprise that does not succeed, and lose their money, or else are compelled to live on their little capital till it is all gone. This organisation would save them. They would be able to go and work in it, and learn to produce something it required, and then form themselves into "links," using their capital to buy their plant and machinery.

It is important in this connection that the "links," as I have described them, need not be groups, they could be individuals. They need not be working in any kind of co-operative colony, but could be in the towns, and could do some private trading as well as the co-operative, and any commercial concern not working to its full extent might join in these co-operative exchanges, as I have just mentioned, and as I also mentioned, the organisation could thus be a clearing-house for co-operative exchanges, taking in the slack of the individualistic system. This is the extremely important principle that can certainly be applied to some extent, which I referred to also in the last lecture, and to which I shall return.

Once more, we are not concerned with opinions, but with facts. As co-operative production has been attempted under very difficult circumstances, we may be quite sure that it will be under the particularly easy ones we shall have now, and we are safe

also in saying that some degree of success will be attained.

Co-operation that really is co-operation, succeeds on a small scale, but fails on a large scale. The successes it has obtained in large enterprises have been won by modifying itself so as to differ in nothing very essential from ordinary enterprise. As far as all the indications we have can guide us, ordinary enterprise will be wanted to co-ordinate the efforts of co-operative groups.

Firms might make their labour contracts with co-operative groups instead of with individuals, the groups arranging to deliver the required number of pieces, if it is piece work, or to give workers for the required hours of labour in the factory. The workers then could spend part of their time cultivating a holding, making their arrangements among themselves for the work in the factory.

Economically also this would be a good plan. It would admit of great concentration of labour on the industry in busy times, or on the farm at harvest time, especially as the families are an important labour factor on the farm in such times. There are special reasons for developments of that kind after the war. For one thing the men returning will not be inclined for the old dull life of the factory and the drab city, and this is how all can escape it. For another thing they have learnt comradeship which will incline them for co-operation. This blending of co-operation and individualism, and of agriculture and industry may be the solution of our labour problems. But object lessons are wanted to convince people,

and we should give the very best object lesson by starting the educational organisation.

Everything unites to make us think that when we have a strong co-operative system we shall have a strong individualistic system by its side. It is a fact that where labour is well-paid capitalists make large fortunes, not the reverse. This is for the simple reason that high wages produce the conditions under which labour-saving machinery can be extensively used. Low wages, on the other hand, produce the conditions that result in waste and non-utilisation of the best methods.

I have passed rapidly over this portion of the subject, giving mere outlines, but it is important because the co-operator we have always with us, and it really looks as though the main difficulties will be removed from his path, and he will be able to advance towards his ideal. But, once more, all that concerns us is that he will certainly try, and will certainly attain some success.

The important thing is that we can set to work at once to establish industries co-operative in their economic working, but on the ordinary lines as regards their management, and it does not matter if their promoters are quite selfish in their object, for in any case they would increase employment to any extent, getting over the difficulties of capital and other limitations of our present system, and so solve entirely the problem of unmerited poverty. Human nature, therefore and altruism to do with solving it.

When we separate in our minds what is essential from the hobbies of different parties, we see

that nothing more revolutionary is needed for a first step than to establish industrial organisations that, instead of limiting themselves to producing one kind of article, would produce the articles that supply the principal needs of their workers; all then could have food, housing and clothing and the opportunity to move out on any lines, individualistic, co-operative or other that they fancy. In a word they could have bread, an object in life, and be furnished with the means to strive for the attainment of their ideal. That is as far as any sane person could hope to go towards solving the social problem, and if we do what is best in the present crisis we shall be working directly towards it.

Once more, solving the bread question is one thing, and the social question is another; co-operation stands for a certain idealism, and socialism for a revolt against the present system, and the desire sometimes to wreak vengeance upon it, philosophical anarchism even stands for ideals dear to some people. These questions will all continue to agitate us, I am not concerned with them, but only with certain measures to meet a certain emergency, and have nothing to discuss with the champions of any of these theories.

LECTURE IV

India's Opportunity to Help the Empire and Herself.

Great Britain's problems are profoundly interesting, because she is deeply involved in the crisis of to day, and most urgently needs well thought-out practical measures to use productive power in war and in reconstruction after it; and India can claim to rank beside her in interest, because she has gignantic resources to tap; and she is indeed more interesting still in respect to reconstruction problems by reason of the fact that we have with her something of the clean slate.

Theories have run wild in Western countries for a very long time now, with the fatal result of dividing people into parties, and giving them strong prejudices which prevent their taking the broad and elastic view of the problem of using our productive power that is now required The people of India are not bound up with theories. The megalomania that wants to begin any application of the fundamental ideas underlying socialism with everyone at once is unknown to India, that has seen every system working side by side. Socialism may be spoken of as being indigenous to her. The village communities are practical examples of it, and her joint-family system is the most wonderful testimony to the socialistic spirit of the Indian people. Socialism is an

ancient fact to her, not a wild new theory, as it is to the West; it is a plan she knows may be usefully applied in certain ways; that, I may say, is why I came to work in India.

It is quite unreasonable, even in an emergency like the present, to expect India to forget her own pressing problems, her distressed middle classes, her millions whose annual income is put down by some under two pounds a year, on an average, and her problem of popular education still unsolved; and her leaders will very soon see that, by doing the best thing for their own country, they can make at the same time their best contribution to the needs of the Empire, because if she can tap only a little more of her gigantic latent resources, she will give very great help in the present crisis, whilst her contribution towards the solution of reconstruction problems might be of priceless value.

If we are opportunists not idealists we can do something, though we cannot change the world in a day, and we have now such calls upon us, and at the same time such opportunities, as have never been had before in history and India's are very great.

But the question always remains what work, specially, we should concentrate upon for a start; and we always come back to the same eminently reasonable one: socialism for the junior part of the population.

The modern position, with regard to the social question is that there are plenty of El Dorados, anything could be done with the immense productive power we now possess; but, as we have not succeeded

yet in finding one with a practicable road leading to it, we have remained in the wilderness.

But now at last we have found a splendid road that at all events leads somewhere in the direction in which we all wish to go: namely, the educational system our improved methods have rendered possible; therefore both the opportunists who have lost their illusions, and the idealists who cherish them still, will join in travelling along that road. We must still be opportunists though we are now, at last, in the position of seeing the old obstacles and difficulties that stood once in the way of our making good use of our immense productive power removed, and must therefore witness some important developments. No reasonable person will believe that we are going to see a new era suddenly established after the war, for we have good reason now to know that our old world remains very much the same, because, after all, human nature makes it what it is. Never in the whole course of history has any plan to give a new direction to human affairs worked to programme, nor have any of many great anticipated changes come about as they were expected to. When the age of machinery dawned, the then apparent causes of poverty were removed, enthusiasts made plans, confident in a new era that was coming, but the plans came to nothing; there was over-production of them and people would not agree on one. Old obstacles and difficulties, we thus found, may be removed, but just as fast as they are, human nature causes new and unforeseen ones to arise.

Having experienced that our whole interest must be directed, not to plans, in which we can now have

no faith, but to opportunities that occur to deal effectively with definite problems that must be dealt with, and to the tendencies of the day that are based on clear and definite causes, and that therefore must carry us along with them to some extent, whether we plan or not and India has her education problem.

We all know something of social science now; we have been fairly well drilled in it during the last decades; everybody knows that young people up to a certain age—according to the opinion recorded by the Royal Commission on Physical Deterioration it is eighteen—are plastic and capable, to a very great extent, of being moulded morally, mentally and bodily; and we know that we might now give them all that would help their best development during those plastic years. We must therefore do it.

It is not enough to give them schooling; they must, whenever necessary, have food of the right kind, supplied to them in sufficient quantities; they must also be systematically trained to be energetic and intelligent in their application to practical work; their bodies, their minds and their habits must all be trained and developed to their full capacity.

In a country like India, whose climate is relaxing, it is impossible to estimate what might be the value of an education system that would take children young, and turn them into athletic and alert human beings, during the years when, as physiologists know, it could be done.

By a short period of work in a good organisation using modern methods producing articles for use, not for sale, they would very soon be able to pay in

labour for every thing that supplies the simple needs of an Indian boy.

Now India knows quite well that her whole progress depends upon the development of a good system of popular education. She knows also that the system she has, possesses great defects, and that her hope is in some development along the new lines that we have now found to be possible, and during the short time I have been working in the country, I have had the support of Sir Asutosh Mookerjee and have been able, through the generous help of Maharajah of Cossimbazar, supported now by a grant from the Corporation of Calcutta, to take some small preliminary steps towards establishing education on those lines.

But expensive plans are not to be thought of now, and I shall therefore concentrate on the step towards establishing this educational system that would help in the emergency, not burden the State.

In India the difficulty is to induce people to invest their capital in industries. It would be highly desirable to get them to do so at the present time, to help in the production of things the Government needs during the war. The government of a country on the threshhold of its industrial development, as India is, might safely guarantee a certain amount of custom to new industries producing satisfactory goods for it. The only difficulty would be that giving such promises of orders might be establishing an awkward precedent to.

But it could be done just to a limited extent, as an emergency measure, in a time when all sorts of emergency measures are being adopted, and there

is not one reason, but a great number of exceedingly important reasons to adopt this one, and every reason to hope it would lead to the solution of the country's greatest problems.

As I mentioned, there are plenty of young men anxious to start industrial careers, who can command some capital, and if they could start industries together in some suitable locality, where they could have every kind of help and supervision and, provided only that they followed the instruction of those who would be there to instruct and guide them, the certainty of the sale of some produce, there is no doubt that many guardians would be pleased to take advantage of such an opportunity to enable their sons or wards to start in industrial careers without the ordinary risks.

Guardians then would know that there would at all events be no fear of their money being lost, for if the young men turned out quite disappointing in their industrial capacity, the special privileges attached to industries in these establishments would bring willing purchasers for the plant, ready to give a fair price—although strict regulations would, of course, be made to prevent their selling at a premium—there would be sufficient supervision to prevent plant and machinery from going to rack and ruin in any case.

As I also pointed out, Indian climatic conditions help such a plan. If a place with a good climate were chosen, and where also other conditions were favourable, and if all arrangements were made by co-operative organisation and otherwise, to give all the

amenities of life at the minimum cost, it would be easy to induce retired engineers and other technicists to live in such "industrial colonies" and give their help for very small remuneration in addition to their pensions.

Numbers of people, then, would come to live in such places for variety of reasons, towns might soon be brought into existence. Now, as every financier knows, that would mean the creation of enormous land values. Let the government, therefore, give this promise of help. conditionally of course, and then it should be easy enough to raise the whole capital as a very excellent business speculation, which ought to have what financiers call "gilt-edged" security.

Needless to say, however, that the Government would give each industry of this kind sufficient support only to enable the young men starting to make a living. Its object would be to divide its patronage, that would have to be limited in its amount, among as many people as possible, and not to make any individual rich.

The best plan for these industrial stations or "colonies" might be for the small industries to produce some portion of some article of manufacture, the group collectively producing the whole.

That would be economically advantageous, and would allow of the use of better methods than might be possible otherwise.

The young men should, therefore, in every case secure also some trade independently, to gain business experience. I suggested in my report to the

Calcutta University Commission that they should be encouraged to enter into working partnerships with small industrial or commercial firms in the towns, and work with them as a kind of manufacturing branch.

In that way they would gain commercial experience, whilst they would do, or get done, in their industrial station, work that required better equipment than the ordinary town workshop has.

Some of the more ambitious ones would aim at getting practical experience in these "industrial colonies," and then selling up their plant to start wherever they thought they had the best chance of doing well; but there are also young men whose guardians know perfectly that they have no particular ability for commercial work, and who would hope and ask for nothing better than to have them employed usefully in a good place where they would have good companionship, and be occupied and earning something. These industrial settlements would solve their problem also.

Another great importance of organisations of that kind would be in pioneering new industries. There are many industries that everybody knows could be started in India, but the difficulty is to get somebody to do the pioneering work. Plant would have to be set up, and there would be the great difficulty of the lack of people with the proper experience.

An industrial colony of this kind, with its committee of various experts, would be the ideal nursery for new industries. It would be able to utilise existing machinery, overtime at first, until things

were advanced enough to give people the confidence necessary for the acquisition of special plant. Its importance in this respect would be enormous.

Now if the Government made the condition that, in exchange for its patronage, these industries would give students good opportunities to learn industrial work, earning whilst learning, we should have then a first practical step towards self-supporting technical organisations, in the form of great technical schools of the best kind, established without expense to the public, merely by offering inducements to people willing to establish industries to come together to the same place, where, by reason of the control the government would have, the industries could serve for educational purposes.

But, to induce people to invest their money we should have industries as every one understands them, and not start any novel co-operative system at first.

We would however, from the very first, apply the principle of co-operation in every possible way to make living cheap in those industrial stations or "colonies." Socialised production and distribution of the necessaries of life would be established from the start, before any vested interests had been created that would be awkward to deal with, to avoid the wastefulness of ordinary trade.

It has been calculated that rice of the quality that sells for Rs. 5 a maund can be grown for Re. 1-8 to Rs. 2 a maund.

The cultivator certainly does not make an enormous profit, nor does the middleman, but the cultivator, who is generally in debt, works under many

very disadvantageous conditions, and that is really what the purchaser has to pay for.

For economic reasons, therefore, the very first thing we should want to do in such "colonies" would be to start agriculture under good conditions, and then we should at once take a very great step towards carrying out the education system I have been outlining. Let it be noted here that the agricultural land would not have to be adjacent to the industrial "colony." It could perfectly well be at some distance from it.

Generally speaking if a locality secured all these economic advantages for itself, the landlords would sweep the benefit into their coffers by putting up the rents.

In the case of an educational organisation like this one measures would be taken to prevent that. Either the Government would own the land or would make an arrangement with the landlord, or landlords, that a fixed and limited amount of ground-rent should be charged.

Generally the difficulties in India in connection with the utilisation of better agricultural methods are the subdivided land, and the lack of workshops in which machinery can be repaired, but both difficulties might be overcome with these establishments. They would be able not only to repair, but perhaps, to a considerable extent, to make suitable agricultural machinery. If the industrial and agricultural colonies were unavoidably at a distance from each other, the former could have a machine repairing branch in the latter.

From that it would be only a step to carrying out the plan I suggested in my report to the Calcutta University Commission : namely, that all boys in schools recognised by the University, and young men reading for science degrees, should spend a part of their time in such establishments receiving practical training, industrial and agricultural. The difficulty the Education Department finds itself confronted with is entirely that of expense. This is the way in which it might be successfully overcome. The boys and young men, during their term in these establishments, could have the advantages of cheap living, and do a certain amount of work of sufficient value, at all events to pay for their industrial training. With modern methods and machinery they might do much of the work in the harvest time, and that would be of great value. Even if there were certain kinds of field-work that could not be done by machinery, and that they themselves would not do, they might, during that time, relieve men of other kinds of work, and set them free to labour in the harvest field ; all this can be done by organisation with the help of modern methods.

As I have also mentioned, one of the things co-operative organisations can do most easily and most effectively is to give help to widows with families, and to families whose bread-winner has been over-taken by some misfortune. Such families would be able to live in places of this kind for a fraction of what living would cost them elsewhere, with good arrange-ments for the education of the children, and oppor-tunities for them to earn whilst learning ; and, last

but not least, exceptional opportunities for young men to have an industrial training that would fit them much better to earn their living than the ordinary purely literary training does.

Then the further and remunerative development I mentioned might be anticipated.

Many families besides those in straitened circumstances would gladly join those "educational colonies" when once the necessary conditions were established, including the unique educational facilities. There would be every reason for them to grow, and indeed for them soon to become educational and industrial stations, brought into existence from the nucleus of a few industries supported by the Government, combined with the co-operative facilities making living very cheap.

There would be no reason to give people who were not poor any extraordinary concessions as to rent. They could be charged at the ordinary rates. In that manner immense profit might be realised by the land-values created by a venture of this kind judiciously started, and any surplus profit might very properly be used as a fund to extend this education system. In any case there would be every hope for one successful experiment of this kind to pay, to be followed by a number of others, and to bring us towards the establishment of this system of education.

It is at once apparent what immense social utility such an organisation could have in a very great variety of ways. It is a manner in which we might apply in India the very hopeful "garden city"

principle which has brought the town of Letchworth into existence in England, and now is the time to start. Such a simple application of socialism, to make education practical, to help families left in bad circumstances, and people starting new kinds of industries, or commencing industrial careers, could thus be set going by the Government, by mere patronage, and supply many urgent needs, and might have, as its immediate result, the enlistment of a great deal of capital and skill to help, both to win the war, and take full advantage of India's unique industrial opportunity.

When once a start had been made it is obvious that people outside the industrial colonies themselves would demand the extension of the advantage of cheap supply of the necessaries of life, all would begin to ask why they too should not have rice at half the bazar rates, and then we might safely expect developments of co-operative production and supply on a scale we have not known yet.

Every consideration alike economic, educational and social would then demand the multiplication of such colonies as centres of co-operative production. The demand for them should be imperative in India, where production is so often carried out in primitive and uneconomical ways.

Then, as I shall presently show, we should be on the way to solving the whole problem of popular education, of unemployment, including specially that of the middle classes, and of undeserved poverty generally, by an organisation we could speak of as socialistic or co-operative, according to our way of

looking it, and to the part the State would play in connection with it.

We could then send village boys to these "educational colonies" in the way I described in the first lecture.

It would be a matter for educationalists to decide whether working class boys would receive all their elementary education in the establishments, or whether, as I suggested in that lecture, they would attend school in their villages, and pay for their schooling, and if necessary compensate their parents for the time they spent for their education, by their subsequent organised labour in these establishments. There is no need for us to enter into these details for the present. I have outlined a plan but many others could be suggested. The essential thing is that we should have the youths employed for a few years, equipped with modern methods making their labour very productive, and that would enable them to receive the very best training, paying for it all by their labour.

Writers on India's agricultural question have advocated, instead of the investment of capital in large farms, its investment in providing cultivators with everything that is necessary to obtain the most from the soil, including machinery, seeds and manures, the capitalists taking a share of the produce. These industrial establishments could very well become centres for enterprise of that kind also.

They would themselves use the surplus produce; so would be at the greatest possible advantage in carrying out the plan. They would be the co-operative

industries I have been describing, with all their advantages as regards capitalisation and management.

What I have outlined above is no doubt a very round about way of doing what the Swiss have done simply and directly by establishing farm-schools; but again, these are times in which we must give help instead of asking for it, and in the way I have suggested we should give the help that is wanted.

It must be sufficiently clear to everybody that when once we start the co-operative or socialistic system of production in one way, it will develop in a number of ways, and the more it grows the more it will be able to grow. From this little beginning we should be able to proceed to the solution of India's various economic problems.

Our duty is first to understand and then to make some beginning, and as I mentioned in my first lecture I have started an association with the name of Indian Polytechnic Association, the object of which is to do everything that can be done to pave the way to the establishment of an organisation of that kind. It has been supported in different manners by the most prominent people of the country, but some popular support will be necessary before it can do any real work, and this I hope to obtain for it soon.

India's most pressing problems are; first, the poverty of the masses, a considerable proportion of whom have not sufficient food; secondly the pathetic poverty of the middle classes; thirdly the problem of popular education; fourthly among the problems

that are occupying the minds of Indian administrators is that of suitable employment for the Anglo-Indian community, which is in a position such as few communities are in any other country, being in a very true sense, foreigners in the land of their birth.

The Indian poverty problem may, for our purpose, be divided under two headings. First the poverty of the people, and secondly the insufficiency of the revenue to meet expenditure much needed for the good of the people, very notably for sanitation, irrigation and education.

The root cause of poverty in India is in the fact of the vast majority of the population being engaged in cultivating holdings which are too small, and too sub-divided, to admit of very profitable systems of cultivation; it is aggravated by indebtedness, from which very few are free; and which also hinders cultivating holdings in the best ways, producing thus a vicious circle of poverty.

When we had village boys working in establishments in which their labour would be used economically, helped by modern methods, to produce the various necessaries of life for themselves, we should see our way to the solution of the whole poverty problem.

We should not limit their employment in those establishments to the compulsory period. The longer they chose to work in them the better it would be. There would be no reason either not to allow adults to work in them. Part of their labour only would be required to produce food and necessaries, or their equivalent in some useful shape, and the surplus

might be used on works of sanitation and general improvement, which are often so greatly needed; thus the surplus working power, or to put it in other words, the saving of energy due to proper organisation, could be used to do irrigation, sanitation and similar works.

We need not contemplate at first crediting to the workers the full value of their labour, according to the ideals of co-operation. But it would be wise to give them good remuneration in kind and, wherever possible, to give them the actual meals for themselves and their families, so that their creditors would not be able to take the bread out of their mouths.

Men whose holding is too small for economical cultivation would thus be induced to work in this organisation, letting their land to others, except perhaps such small portions as they might choose to retain. In that manner by solving one man's problem we might solve another one's indirectly.

As the result of this would be that more food would be produced in better holdings, using better agricultural methods, the cultivators would then want products of industry, and the establishments could supply them also. They should become centres both of agricultural and of industrial co-operation, not only giving people employment but giving help to those who wished to work independently or semi-independently, in the ways I have described in the last lectures.

It might also be a good plan to compel the men with too small holdings, who habitually sought employment in the establishments, or members of whose

family habitually sought employment in them, to let most of their land to others on temporary arrangements. Thus by making employment in those organisations sufficiently attractive and remunerative, we might hope to go to the very root of the problem of Indian poverty; doing away with too small holdings, and establishing good agricultural methods, by a very reasonable application of socialism merely to relieve those who suffer most under the present system, and so making the land suffice for the remainder.

This is in accordance with the general principle that if we apply socialism to the case of those who are doing badly under the present system, the result will be to make things better for all, so that we shall arrive at the state of natural equilibrium between socialism and individualism.

Such establishments would not necessarily have to be situated near every village, because adults, as well as children, could go to work in them in rotation.

When, however, it was found that the plan operated to improve the cultivators' holdings, there would be no difficulty about acquiring the necessary land at small distances from all the villages. But there would be very great opposition if people had not seen it working practically.

We must show it working, and educational establishments are evidently the simplest way to begin.

The educational establishments would solve completely the second of the great problems I mentioned:

that of middle class unemployment. They would provide any amount of work for middle class men, the scholarly ones teaching, others doing clerical or various kinds of industrial work, according to their capacity.

Turning now to the question of public revenue and expenditure, as I had occasion to mention in my second lecture, one of the most hopeful applications of the principle of socialism is to reducing military expenditure, and making armies socially useful.

That does not mean that we must have soldiers working as factory hands, and as hedgers and ditchers on farms. To understand rightly, it may help to look at things in this way: Labour using good methods can produce, say, four times as much as when using primitive methods, so that if to every soldier there was one worker, well equipped by the army industrial organisation, he would, on that assumption, be able to produce his own maintenance and three times as much for the soldier, even supposing the latter were only to supervise.

The real strength of the plan would be in the socialistic organisation of production; the soldiers could be entirely maintained by the surplus productive power of a sufficient number of organised workers, working under conditions effecting the economies I spoke about at some length in the last lecture, and taking full advantage of the cheapness of producing goods of standard pattern in fixed quantities.

Under such a plan as this, we should probably contemplate having men coming to India as soldiers who would have had training to make them useful in

all kinds of civil employment, both government and commercial. We might then increase the pay of the European army very much, double it or more, and have the men spending half their time in the military-industrial stations, and going out, on some system of rotation to civil work, which should include not only railways and telegraphs, but employment in private firms requiring European foremen and trained men of various kinds.

The military stations would generally be in good climates, suitable for the men's families to live in, and, whilst there, they would do some industrial work connected with producing necessaries for themselves, with the required amount of military exercise.

Again, it would not be necessary to the scheme that they should do any industrial work whilst in the military-industrial stations, but they certainly would in practice. There would be much of it quite suitable for them to do, and for which infantry soldiers, at all events, would be able to spare a considerable portion of the day, and the army could undertake the supervision of all the labour.

The men scattered about the country would not be reckoned as part of the effective military force; only those assembled in the headquarter stations could be counted as such, the army might therefore have to be increased under this system, but it should be of great economic value to the country, instead of being any burden at all on it.

At present British working men engaged in India have to be paid at very high rates indeed,

because of the great expenses and difficulties a European with a family is put to.

Under those conditions their families could live in healthy places, to which the men would return in regular rotations, which might be month and month about, and service in India would be very different from what it is now.

It is important in this connection that wives might perfectly well accompany their husbands on their turns of duty away from the stations, arrangements being made for the care of children during their absence, excepting infants they could take with them.

It is perhaps correct to say that few things would help industrial development in India more than some Europe-trained men at moderate remuneration. They cannot be had now but could then. A rate of pay somewhat above the home rates would prove very attractive under those conditions.

We might, if we were to judge by the experience of commercial enterprise, anticipate great difficulty in obtaining the immense amount of civil labour we should want in those military-industrial "colonies."

But the civilian workers could be permanent. They might have a plot of land to cultivate, and good remuneration in kind for the work they did for the organisation. It would be a socialistic organisation with all the strength of one, and these workers could be given a proper share of the advantage, that would make the work attractive to them, so that the supply of labour might be abundant.

The Indian Army might be dealt with on exactly the same lines. Those portions of it that consist of

men who are willing if paid to do manual work could similarly do turns of service away from the military stations, during which they could earn money. Regiments could be employed on sanitation, irrigation, and other work or men given land to cultivate.

European officers could take their turn and turn about of service in the climatic stations. If this involved doubling their establishment it would not matter, because they would be doing their proper part in connection with the industrial work of the stations, and directing the public works executed by the soldiers, so would be producers also.

We should then have a state socialistic organisation doing public works, consisting of some Europeans and some Indians, who also would have military training and form the army, which under those conditions need not cost anything at all as an army. That is the correct way to understand such an organisation. Every economist knows that its surplus productive power would easily suffice, not only to enable it to spare its military members for their training, but also to send men out doing sanitation works, to get the country rid of malaria, to irrigation work to make famines impossible, and other to do public works.

It would form one economic whole with the educational organisation and the village organisations we have been considering. It could have its "links" as I described in the last lecture—organisations working with it—and nobody can tell where it would find its limits.

The avowed object of British rule has always been to lead India step by step towards self-government.

Here seems to be a way in which she could lead herself very quickly, as everybody who has studied the subject knows, and every unbiassed person will realise easily enough. The administrative difficulties, and in fact all those that seem to stand most in the way of India's progress would be removed by an organisation of that kind, which by standardising management would simplify administration enormously.

The idea of the military colony is as old as the Romans, and many countries have tried it. Failure, however, has been due to the fact that soldiers have sometimes to be called away for active service at disadvantageous moments, and the result may be that the benefit of their labour for a long period is lost.

A socialistic organisation combining military, educational and public works branches would overcome this difficulty.

Once more, for I can hardly repeat it too often, we are not concerned with speculations as to the degree of success we should be likely to attain in such an effort to apply state socialism. What concerns us now is merely the fact that if we do what we evidently can do for the benefit of the rising generation, we shall lead directly towards all these developments, and it is for the future to show how fast.

Either the military or the educational organisation would solve completely the fourth and last of the problems I named : that of the Anglo-Indian community.

No Anglo-Indians need ever be refused enlistment in this industrial army, or in these industrial

colonies, either the educational we considered first or the military ones.

They might join the latter as soldiers or as civilian workers according to their taste. In the educational-industrial organisations, they might learn and earn, and take their part in the industrial work when trained then they might go out to work in public services as civilian workers in the way suggested for European soldiers. It would be for the military authorities to decide whether, employed in that way, they could be reckoned as a useful part of the European army. It might also be made compulsory for all those accepting certain kinds of employment under the Government, or on the railways, to take turns, in that way, in military stations. They could receive some military training there and so all become efficient members of a force that would be almost like a portion of the regular army; whilst it would be entirely advantageous to them, and in the highest degree beneficial to their children.

In that way they could be infinitely better off than they are now with the same pay, and their children might enjoy the very best conditions. Men could also be allowed to do independent business in those stations, in all the ways that I have described in the previous lectures, for co-operative organisations with their attached and semi-attached industries. The tendency, then, would be for the men, according to their family and other circumstances, either to remain entirely in the stations, or take more or less frequent turns of work away from them in various kinds of employment, in organised

rotations, or on their own business by their own arrangements with their partners.

Any organisation on that system would so obviously meet the needs of the Anglo-Indian community that their leaders and friends should play a prominent part in its pioneering work.

These are the new possibilities that have been opened up, they are endless and infinitely varied, but after all the important thing is to know the road we must travel along to attain at least some of them.

New possibilities are always received with profound scepticism, sometimes through the blindness of those who do not want to see, because they fear that, in some way or other, their interests might be prejudiced, and sometimes because of the difficulty people have in imagining anything different from what they have seen. We must advance by well-chosen stepping stones, and carry the public along, despite the incredulity into which we know quite well it is hardened by our signal failure until the war broke out, to utilise our productive power at all efficiently.

India is bent on industrial development so, the question arises whether she should go on the plan of the West which is already discredited in the West.

But the answer comes clear and strong. The world is tending back now towards socialism, that can very properly be called India's system; it is India's turn, therefore, not blindly to follow but to lead in the new direction.

The old type of industry can be established only to a limited extent, to the extent to which it can find

a market for its produce. When demand fails it is at a standstill. It is severely limited, moreover, by difficulties of capitalisation. The industry producing necessaries for its own workers and a surplus for those who have provided the machinery—the economic application of the principle of the bee-hive—can be established anywhere to give people good employment, and is subject to no such limitations.

One way or the other its advent is destined to do incalculable good to the masses of the people, and we must evidently take steps in some way towards establishing it, and people in India are ready to recognise that, as indeed they must be, and India should lead in the matter.

All those who know the country, and have studied it with any degree of sympathy and intelligence, know that the true life of India is the village life. The discredited industrial system of the West breaks up the village, the new one would restore it. It is therefore vital to India to give a lead in going the right way, and not to follow in one that has given unsatisfactory results.

The war has opened our eyes to the fact that we can equip people for any kind of work, however costly the equipment; we have done it for wholesale destruction and now we cannot refuse to do it for purposes of the greatest possible social utility, and when it is quite clear that the money would come back. But it will not be done till those who have understood have given some practical lead; arguments will be of no avail as the socialists have found. Now is the time to take such new steps.

Any plan that will help in the present emergency is eagerly adopted. Capital could be enlisted in the way I described in the beginning of this lecture if the Government would give the patronage that would ensure a well conceived enterprise paying through the land values that would be created.

We have, once more, a duty not only to contribute our best in the crisis, but also to seize the opportunity to bring about a great social progress, by taking full advantage of the exceptional forces that are asserting themselves at this moment, and we must not fail.

We can do nothing more useful in England than to start an organisation that might make boy labour as important an item as women labour has already become; and in India than to enlist capital and skilled and unskilled labour, to help to produce materials of war, by starting the very industrial colonies that would be the first step towards all these developments.

But India being less committed to the old system that cannot use productive power efficiently, and to the sophistry with which it is defended, should lead in the matter.

Everything in the way of industries becomes possible when we have an organisation of customers; with it we might start an industrial "colony" even without the help of the Government, so all can help by supporting the Educational Colonies Association in England or the Polytechnic Association in India.

Everybody in India realises the immense importance of the problems of education and employment

of the middle classes, and in taking our first steps as measures to solve those problems, we shall get everybody on our side.

By the generosity of Maharajah of Cossimbazar a school has been started expressly to enable young men to learn industrial work, and as soon as possible to earn whilst learning, so as to be a useful first step, and one that will be popularly understood, towards the establishment of this system.

During its first-year the school grew to contain nearly 350 boys in its various departments and during the early part of its second year it nearly doubled its numbers, and the Corporation of Calcutta came forward with financial help.

Marked interest has been shown by the Government, the Press and the public; following upon a long series of articles in the "Empire" the whole of the Press both European and Indian has shown interest in the plan. His Excellency the Governor and Lady Ronaldshay visited the school in November, 1917 and recorded warm appreciation of the effort. It is by proceeding in this way, by steps every one can understand the utility of, that we can approach towards realising such new possibilities as these, that few people will ever believe in except when they see them realised.

The idea the school stands for is exceedingly difficult to carry out in a small organisation, and in a town, but careful attention is being given to solving the problem. The main difficulty is that machine work is generally not instructive, and is open to objection in other ways, whilst manual work suffers from

the competition of exceedingly underpaid workers. The solution seems to be to secure trade profits to the establishment, and to the pupils doing industrial work. The Indian Polytechnic Association has been organised as an agency to obtain custom for school industries, and in that way to get over the great difficulty in India in connection with practical training combined with schooling, namely the expense, as I have already mentioned. The solution is to use the workshops commercially, so that the machines will not stand idle and the workmen engaged will be earning their pay, and this will be possible if the Polytechnic Association is well supported.

These are small beginnings, recently inaugurated but they have secured the support and interest of the most prominent people in the country, testifying therefore, to the hopefulness of beginning by an educational organisation and a good beginning may lead rapidly to more.

LECTURE V

Reconstruction—The Land Question

In this lecture I shall consider a question that is of the most vital importance from the point of view of reconstruction; it will not come up before the end of the war, unless it lasts very long indeed, and brings us unforeseen developments in the way of air attacks on towns and long range bombardment of them, but after the war, at all events, it will be very important, and studying this question we shall also see what complete reform we shall be led to by taking some practical steps at once. As I have said before, and as I may repeat, the opportunity we have now to solve problems of the greatest importance to human welfare is one the like of which has never before occurred in history.

The present situation very, fortunately, does not demand of those who have understood it that they should enter into politics, but that they should do a thing absolutely in their line: namely establish education of a new kind; as, however, we have to meet a political situation the exercise of some political forethought is demanded; we must understand the mentality of the masses, which is emotional and bluntly objective and how we can lead them now.

If those who have the capacity and leisure to think things out can realise that if only we started co-operative production somehow, whether with an educational organisation, or in any other way, it

would grow and develop and solve all our economic problems, the masses may easily fail to believe it, so we must also study popular movements; and indeed one of the most useful things we can do at the present time is to direct certain popular forces that are gathering enormous strength.

The democracy is fully resolved now to remedy a tremendous mistake our ancestors made which has resulted in untold and absolutely incalculable evil to the industrial classes, and the war gives us such a chance as we have never had before to lead to this.

I said at the beginning of my third lecture that the social question seems to put us in presence of the strangest facts in human experience, and the crude anomaly in our land system, which prevents our towns from being made healthy, certainly deserves a place among the very strangest of them. The opportunity that occurs now to remedy it is of the profoundest interest to every country that has any industrial development. Britain must do something in the matter, and if she goes to work in the right way, results of the most far-reaching importance will follow for every country.

Many thoughtful people say that, on the whole, our industrial progress has brought the masses more harm than good. It has very largely done away with skilled labour, and made work monotonous to a degree to be often demoralising, and it has brought the workers into towns which, it is hardly an exaggeration to say, combine, in a striking manner, the conditions that are prejudicial to morality and health, and that certainly combine every one of the

conditions that contribute most to create the habits of intemperance which are the great curse of the industrial classes.

These evils, however, would not have arisen but for a crude mistake in connection with our land system that fully justifies the statement of that eminent scientist, the co-discoverer of Evolution, the late Dr. Alfred Russell Wallace, that "as regards true social science we are still in a state of barbarism"; and the people are now beginning to understand this.

Industrial progress gave us the means to remedy all the evils that have come with it. It gave us the methods of transport that have rendered quite unnecessary either the crowding together of factories in certain localities, or of the workers' dwellings round the factories, and an energetic propaganda that has been carried on during the last quarter of a century or so by a number of organisations in Great Britain has made people aware of the fact that, wherever the workers enjoy the conditions of spacious town-planning that progress has rendered possible, they are like a different race from dwellers in crowded towns, both physically and morally.

This superiority is not due only to the great value to the human being of pure air. It is due as much, or even more, to the fact that spaciously built towns, "garden cities" as they are termed, combine, in a very remarkable manner, all the conditions that tend most to moral health, and specially to combat alcoholism. Experience has shown also that when

suitable sized gardens are provided round the workers' dwellings, under favourable conditions, they are practically always cultivated either by the workers themselves or by their children, and generally by both.

Thus, if we give the industrial worker the first elementary necessary, which is sufficient space about his dwelling for him to have pure air breathe and to have a decent home, we give him incidentally an economic advantage of the greatest importance.

Now, as sociologists know well, we are in presence here of a fact second to none both in its interest and its importance for the welfare of mankind. There is a remarkable exception to the general law of advantageous subdivision of labour. A considerable variety of food-stuffs can be produced better at the home itself than anywhere else. They are not produced by means of any elaborate machinery and appliances, an important material in their production is the household refuse, which otherwise is costly to remove, finally such labour as their production involves forms the very best relaxation for industrial workers, and specially for their children, and becomes of priceless importance to the latter, as indeed to the former, for its educative value. Sociologists know well how great that value has proved itself in every instance.

All social surveys that have been made show that where the workers combine agriculture or horticulture with industry they are well off ; and that for the perfectly simple reason that they are then working under the economically correct conditions of producing for exchange products of industry that

are suitable for exchange, and for their own use the agricultural produce that is not suitable for exchange because it is bulky and perishable and therefore awkward to handle commercially.

If only we took advantage of the means of transport progress has placed at our disposal, the workers might spend a short time in the factory, under the arrangement of "shifts," which would render the monotony of the work comparatively harmless, the system that some prominent captains of industry are already advocating, and part of their time cultivating a small plot of land, to grow some of their own food, living under natural conditions. With spaciously built towns we should have had all the benefits of industrial progress without any of its evils.

Why then has this not been done? We all know the answer. The land occupied by the towns becomes immensely valuable, so that giving the workers even gardens becomes out of the question; the land around them acquires a considerable "speculative" value, which renders even the creation of "garden suburbs" prohibitively costly.

Our land system, as we know quite well, prevents us from doing everything that would be best for the workers and condemns them to conditions that are bad in every way, and that is why in every advanced country the land question is in the very forefront now.

Let me now put all this in the concrete: The advantageous situation for a factory is on the railway. In properly planned towns we should have all factories

along the railways, and the workers' dwellings loosely and spaciously grouped near them. This, of course, is seen in new countries, where people have been able to do things in a systematic way. Under those conditions if the worker gives up his employment in the neighbouring factory, he may, for some time, have to travel a considerable distance to and from his work. That, however, is of no consequence at all with proper arrangements. In England we have trains conveying working men at the rate of over ten miles for a penny, in Belgium before the war, there were cheaper rates still. The fact is that where a fixed number of people are conveyed over a certain distance at certain times daily, the cost of conveying them is extremely small and the travelling can be very rapid.

It is impossible to dogmatise about the best plan for town, because in such matters there must be differences of opinion. What is certain, however, is that crowding is absolutely unnecessary, so its consequences, which are incalculably disastrous, must not be tolerated. Another thing we know is that, under modern conditions, convenience demands rather a lineal development of towns, to concentrate traffic along a few lines, along which there will be a rapid succession of trains and trams, and travelling will be quick and cheap, and by a remarkable and interesting coincidence military conditions demand the same thing now, to avoid air attacks. Under old conditions we needed the compact town, both to shorten distances and to obtain protection behind walls. Now, on the contrary, we need the lineal development to bring

traffic on to a few lines, and allow oi a good development of urban railways also to meet the kind of attack the modern town is exposed to. The ideal, to meet all modern conditions, would be a cross or star shape.

Now what would be effect on landed interests of planning towns in some way that would suit present-day requirements?

We may classify land under three headings: First, land used as building sites, which is generally the most valuable kind. Secondly, that termed "accommodation land," land that has also considerable value, by reason of its convenient proximity to dwellings, business places, or to populous localities. It includes not only gardens and land used for numerous industrial purposes, but also agricultural land near enough to the town for the cultivator to be able to deliver his produce direct to the consumer, or at least to the retailer—under those conditions the cultivator has a very great enonomic advantage by reason of the fact that much agricultural produce is awkward to send through the avenues of commerce. Thirdly, we have rural land, land used for ordinary farming purposes, which is much less valuable than the other classes.

Now with towns as they are, we have all the building sites clustered together in great solid masses, we have a belt of "accommodation land" round them, say two to four miles wide, and most of the rest of the land of the country is rural land. If, however, we had towns stretching out along the railways, about one half the land of Great Britain might be "accommodation

land" of the various kinds—as half the land might be within three miles of a town or suburb, so that the total value of the land would be enormously increased.

Each house then would have a garden, which is the most valuable kind of accommodation land, worth often half a dozen time as much rural land. All industries and business places, finally, would be able to have their accommodation space, which is exceedingly valuable to them.

The net result, then, would be to scatter the building sites, now collected together in solid masses, dotting them out, so to speak, along the railways in a series of loose clusters, of "garden suburbs," and to create thus an enormous "amount of accommodation" land of all classes.

All then we want to be able to do, in order to rebuild our towns is to make arrangements to be able to catch the site-values that would fly away from the present town sites and settle in the country around, and return them to the landlords who had lost them, and catch the accommodation values that would be created, and use them to defray the cost of rebuilding. That is the modern land question.

The land question may be looked at from a great number of points of view, some of which were important in the past, whilst others are important now. Taking it generally, however, in a new country, and under primitive conditions, the occupier of the land makes its value and therefore it is natural enough that he should possess it ; but when a country is advanced, the public makes the value of the land

extensions of towns, of railways and public works create land values, so it ceases to be right that private individuals should own them.

Whilst, however, the party to make the value of the land has been changed, we have not made the corresponding change in the party to own it when it is made, so that we are now in the absurd position of having the value of land made by one party—the public—and owned when it is made by another party —private individuals—and with this crude anomaly it is thus made impossible to plan towns well. Every consideration of health, public morality, and economics, demands that we should avoid crowding the industrial population, and give the workers the dwellings with gardens which our progress had made it possible to give them, but owing to this gross and barbaric absurdity we cannot do it. Therefore whilst being the crudest anomaly it has the most disastrous results, causing perhaps a greater aggregate of human suffering than any simple mistake has ever caused.

As land reformers say and with the very greatest bitterness of our land system; the workers, by their toil, create land values to enrich a privileged class, but to place a fetter round their necks, tying them down to unhealthy and morally unwholesome conditions, often bringing death to their children and too often their moral ruin. No wonder, then, that in all industrial countries there is a strong and indeed violent land reform movement.

But here again we want a few people who will use their intelligence to understand, and not follow

their impulses and be impolitic in their way of attacking the evil.

The first thing that those who desire the good of the people and not the triumph of any particular land reform theory will see, that we have no need to complicate the land question by any attacks on vested interests or harsh measures of any kind, since it is a question of making valuable improvements of land values possible, not of seizing wealth. The position, to define it again,is that we have one party owning a value that another party makes. A crude anomaly of that kind is mischievous in more than one way, and the particular way that concerns us is that it makes improvements impossible, except on an entirely inadequate scale because we cannot improve towns when the profit, the new land values that would be created, would belong to private individuals, whilst the public would have to bear the cost, the compensations to injured landlords.

We have thus only to state the case to see that the reform required is a matter of common sense and can be of the nature of a mutual and mutually advantageous arrangement.

Here again the old conception of the social question, as one of taking the wealth of the rich to use it for the public benefit comes in and confuses the issue. Land reformers want to make land reform an opportunity for levelling fortunes. This pickpocket view of the land question, as we cannot help calling it in the contempt it engenders when we have understood the true importance of the reform, must nevertheless be taken into account, because there

are so many people unable to form any conception of social reform other than one of taking something from the rich to give it to the poor. The idea that we must nationalise all the land to get rid of landlord tyranny has also to be reckoned with. It is that of people who are incapable of seeing that, if the public obtained control over the very small portion of the land that is needed for the proper development of towns, including the provision of suitably situated small holdings, we should establish conditions under which landlord tyranny would be quite impossible in any part of the country.

The disciples of old writers on the old land question, however, will not give up those views. Our business is not to argue with them, their arguments influence people of their own mentality, but we must do what they fail to do: namely, put forward the side of the land question that admits of no controversy whatever, and demands nothing in the way of reforms but what is perfectly reasonable, just and considerate. It is the very height of folly to complicate an issue of such simplicity as this one of making towns healthy and safe to live in, by mixing it up with others that are not so simple.

Supposing, then, for that purpose the government were to collect as a tax all ground rents in towns, and in the areas for development and to become "accommodation land"—in England that would mean half the whole country, but in India in certain places only—and pay each landlord his share as based on a valuation taken now, we should be able to carry these improvements without any hardship on anybody.

The public would then be able to carry out such improvement schemes, the result would be that some land in the towns would lose its value, but the value would be transferred to the garden suburbs, and the public would recover the amount there and give each landlord what he had been receiving formerly. Now let us suppose that, by way of a pledge of the amount that would be due to him, each landlord were to receive Government Stock representing the capitalised value of this annual payment we should say that the Nation had purchased his land. That would be land nationalisation. It would be a purchase, however, that would require no money to effect it.

But something simpler than land nationalisation would suffice for the purpose we have in view.

Supposing that, leaving the landlords in possession, the public were merely to take, in the form of a betterment-tax, the whole future increases above the present valuation price, that would be sufficient.

There is however some land the main value of which is due to the fact that it is expected in the near, or fairly near, future to become building land; land having "speculative value" as it is described commercially. Government Stock might be issued in a manner exactly similiar to what I have described above as a pledge to the owner to the extent of this speculative value.

Then we might say that the public had purchased, at its present valuation price, the right of landlords to increase their rents in future. Though, similarly, the purchase would not have involved the passing of

any money. We should then have put an end, once and for all, to the present anomaly of the value of the land being made by one party to be owned, when made, by another; thenceforth all increases would belong to the public.

Looking at things from the fiscal point of view, the public buying land values at their market rate would be like a man buying the different parts of a machine from people possessing only separate pieces. To them they were worth only the price of scrap-iron. In his hands, however, when he possessed them all, they would form a valuable machine. The public possessing all land values would be able to carry out these measures by which they would be enhanced immensely.

Those then are the principles. How exactly the reform is to be carried out is a matter for politicians.

What is certain, however, is that the democracy has quite made up its mind that it will not allow the extraordinarily crude anomaly of our land system to continue, having the most terrible consequences concievable to a rapidly increasing part of the population, which in Great Britain represents already four-fifths of it.

What is wanted now is to rescue the land question from the mire of party politics, and from the arguments of "land reformers" who seem, as though on mischief bent, to raise every controversial side of the question, and leave out that which admits of no controversy whatever. But their ideas are out of date and to those who look at the social question from

the old points of view, that way of reforming our land system looks senseless, of course, as it takes nothing from the rich. But it would enable new wealth to be created, which is the important thing now.

Now is the time to take steps in the matter. We have been roused out of that terrible lethargy under which we were able to remain a nation of town-dwellers with a crude anomaly in our land system rendering it impossible to make our towns healthy, and which, naturally enough, produced such bad conditions that a Royal Commission had to be appointed to study the causes of physical deterioration! Habit can make people tolerate anything, as this instance proves, but now we are thrown rudely into unfamiliar conditions, and will have to consider all these questions seriously.

We shall have our young men returning from a life in the field that will disincline them for the dismal drudgery of the factory and the office, and the unwholesome artificiality of our towns. We must let them know that they need not endure it on their return, that, if only we will carry out this long overdue reform, they might have short hours in the factory or office, and a good part of their day cultivating a plot of land, living in garden suburbs.

We know also that we shall never be safe as long as we live huddled up together in great compact towns. In these days of the aeroplanes we shall be liable to bombardment from above, whilst now the submarine has made its appearance we must decentralise population as the only way to make farming

prosper, and put an end to our dependence upon foreign food. Long range guns seem to make this overdue reform more imperatively necessary than ever.

Simultaneously with that we have come to realise that we have an enormous surplus of productive power; we are carrying on our manufacturing, including the manufacture of munitions, with a fraction only of our workers, and the question arises what we are to do with the great numbers of men who will be released from the Army and from munition work.

The answer is obvious: we must employ them rebuilding our towns, which will immediately give an immense amount of employment, and then create conditions under which, as far as we can foresee, unemployment will not arise.

But now the question for us is how to bring about this exceedingly desirable utilisation of our productive power.

Let us consider first how the State could do it, and then what steps we can take, of a practical nature to lead to its being done.

The actual rebuilding of towns would, of course, not be expenditure but an investment. Building houses is a business speculation. The expenditure, the sacrifice, would be the houses in the old towns that would be demolished. We should need, of course, only to demolish the bad ones, and leave the good ones, then with sufficient space, to be satisfactory habitations from every point of view. Now the urban working-class population of Great Britain is housed

in, say, about four million houses and tenements, and the two millions worst of them (houses and tenements taken together) that we might demolish under such a scheme, might be valued at about a hundred pounds each in their present condition; representing, therefore, a sacrifice of about 200 million pounds. In this connection we must bear in mind that if we were demolishing houses wholesale, to rebuild elsewhere wholesale, we should have all the necessary plant made to take houses down and transport the materials cheaply, and in such a manner as to use them for the new houses. That sum, therefore, would at all events go very far indeed towards turning the whole of our towns into "garden-cities".

Now what would there be on the credit side from the business point of view? We have first the immense increase of land values. We must assume that the landlords in the towns would have to be fully compensated, because the depreciations caused by such a scheme would be absolutely uneven, some sites would lose their whole value, whilst others would become more valuable. We must reckon, therefore, that the building site values created in the country would go entirely to compensate the landlords in the depleted towns, and only the new "accommodation values" created would be profit available to cover the cost of the measure.

There are too many factors to be taken into account, and of a too speculative character, for it to be possible to make really an estimate of this increase. In my different books in which I have dealt with this subject, I have gone into the matter in some

detail, but it will suffice to say here that I made the statement that the "accommodation" values created would cover the whole cost of rebuilding the towns, the 200 millions estimated above, and that it has not been challenged. In a long correspondence on the subject that went on for several weeks in the *Westminster Gazette* in 1912, I maintained it, also without challenge. Practically speaking, therefore, without going into anything controversial, what we are able to say is that the cost of changing our towns from the very worst conditions, that is to say those of the crowded habitations, to the very best, that is to say those of garden-cities and suburbs, would be nothing, if only we remedied, in a completely equitable and considerate manner, the absurd anomaly in our land system against which the democracy is declaiming so angrily and so naturally.

But I must not leave this part of the subject without showing that, as a matter of fact, carrying out this change of absolutely incalculable national value, would not only pay for itself, but be enormously profitable financially, and in a way that is specially interesting and important.

Statistics show us that in well-planned towns, of which we have fortunately a few examples in England, the disease, the convictions for drunkenness and crime, are all a fraction only of what they are where population is crowded. To give just one instance, comparing towns similiar as regards all their commercial conditions, but different in this respect: Cardiff gave great attention at about the beginning of the century to proper housing; in 1906, when good

condition has been established, the convictions for drunkenness fell to fifty-five per thousand of the population, whilst in South Shields and Sunderland which are badly planned, and whose population is crowded, the convictions were, in the same year, one hundred and seventy per thousand; practically three times as many. Insanity and phthysis statistics are generally taken as the guide as regards general unhealthiness as those of inebriety are of general immorality. We find that when the crowded parts of London showed an increase of ten per cent. the better planned parts showed one of under two per cent.

Now it is at all events certain that crime, disease and insanity cost Great Britain sixty millions pounds a year, in direct expenditure for various services and establishments dealing with the various cases. That, of course, represents only a fraction of the real loss. Still, however, it alone, capitalised at three per cent. gives two thousand millions pounds. Statistics would lead us to suppose that we would save two-thirds of this, say one thousand eight hundred million pounds, by improving the towns. Once more, however, we cannot make an estimate with any pretence of being accurate, all that concerns us is that, instead of having to reckon what it would cost us to convert our conditions from the worst to the best, the question is how much the direct financial gain would be. As a matter of fact, if it were worth our while to discuss the question from the financial point of view, we might maintain that the financial profit would be sufficient to go far towards paying the cost of the war. It is enough, however, that we could carry out

this work of incalculable good to the people, not by expenditure of money, but with an enormous financial profit to the Nation.

Restoring agriculture is also of immense value that is impossible to capitalise in a precise way. The economic is only one side of the question. The military value would be enormous, we might without exaggeration say nearly incalculable. So would also be the value from the point of national health, on which ultimately everything depends.

But the housing question is a land question and unfortunately the land question has been made a political question, and politics can obscure the very simplest issues. There are extremists among the land reformers strongly prejudiced in favour of drastic measures conceived by their respective leaders who took the ancient, and not the modern, view of the social question. Drastic suggestions provoke strong reaction and bring about a deadlock as we know only too well.

Owing to the paralysis the political spirit produces by the endless misrepresentation and confusion it gives rise to, we have been a nation of town-dwellers unable to make our town healthy, and with the physique of our people deteriorating in consequence, and so might we also be a nation of town-dwellers liable at any time, to be held up to ransom by an enemy who had perfected bomb dropping on towns, or long range guns to bombard them. We have been guilty of the first act of national insanity, and if we had to leave things to politics why should we not be also of the second?

But the really hopeful thing is that we can stop argumentation by practical action. We have the opportunity now to do it, and those who do not seize the opportunity will indeed fail in their duty.

To return to my first example we can, in this case too, cut a little channel that will conduct the first water that comes down, and scour out wider and wider, so that when the torrent arrives it will be guided in the direction in which it is able to do good.

To realise how we can do that let us consider the question of rebuilding the towns from another point of view: namely, from that of the problem of unemployment, which is sure to thrust itself upon us sooner or later after the conclusion of the war.

Unemployment can certainly be spoken of as being another of the astounding paradoxes of our system; for nothing could possibly seem more insane than people wanting everything that work produces and not working.

Hitherto, however, the practical difficulties in the way of organising the unemployed to provide for their own needs have seemed insurmountable.

For one thing unpractised workers can be employed only as helpers among a number of expert ones. For another thing the unemployed are very fluctuating in numbers. Then, again, there would be a stigma upon an organisation for "the unemployed" that would prevent the really good and deserving workers from joining it. The Swiss have attained some success, but have not solved the whole problem for those reasons.

In a word it might be said that we cannot cure unemployment in that way, but would have to prevent it by a scheme of work for all.

But a scheme to do that would have to be organised in a way that would make it practically set up a socialistic state within the State, and we have not as yet been inclined for that.

But an obvious plan is to have such an organisation to employ all needing work rebuilding the towns without the help of the National Treasury.

It could be a temporary and emergency measure, because, as far as we can foresee, the need for provisions against unemployment would cease automatically when that work was completed, and all then had "access to the land."

Currency reformers are the advocates of various plans to set production and exchange operating independently of money, practically in the way we have already been considering under the heading of co-operative exchanges. They tell us that, if only we would issue a paper currency, made legal tender, to people wanting employment, and set them to work doing something of public utility, we should get all our public works done for nothing. So indeed we should, by setting exchanges of services into operation. But we may be sure that our bankers and financiers would have nothing to do with this paper currency, and therefore we could not carry out this plan without practically abolishing our present financial system. That is what most people are not prepared to do, so the plans of currency reformers have not been adopted.

But they tell us also of another plan the practical effect of which would be to set co-operative exchanges going, and that was acted upon to get a market-hall built in Jersey. It was not allowed to be fully carried out, but the general plan was that the market was to be a revenue-bearing investment, as rent was to be charged for stalls, and the workers employed in building it were paid in small share-certificates issued in all ordinary currency values, to be used as currency, made legal tender in the Island. As nobody asked for any interest on share-certificates circulating as currency the plan was to redeem them gradually with the rents charged for the market, and so have the market-hall for nothing. Materials could be paid for in exactly the same way, so that work could, indeed, be done for nothing—except only for the cost of imported materials. The law was, however, set in operation against this scheme, because it was perceived that if it were allowed it would be the end of our present banking and financial systems.

But now we need to rebuild our towns for our national salvation. It is evident that in these days of inventions and infernal ingenuity we must get out of the present crowded towns as quickly as we can. If financial interest were so short-sighted as to oppose borrowing the necessary money to rebuild them in the ordinary way, suggestions like this might be good alternative ones the mere mention of which would be likely very rapidly to bring them to reason.

Let us now consider another way in which workers might be set to work to produce the necessaries of life for each other and rebuild the towns.

We might have a national works department (or national training department, or whatever we might choose to call it) that would purchase all the ordinary necessaries of life for its workers at the most advantageous wholesale prices, and arrange for their economical distribution, paying for them with a paper currency to be used by those receiving it to pay men engaged from that department to do all the work connected with producing, transporting and distributing those articles.

Manufacturers, of course, would use this currency to pay for raw materials, freights, shipping and every charge connected with the production of the articles, and it would be used for the same purpose ultimately by all who received it.

Obviously this plan, if fully carried out, would amount simply to sending these workers out to produce and distribute everything they used themselves, it would be socialism using the managing skill and machinery of ordinary commerce.

We need not trouble about the articles imported from abroad, which it could not produce, although they are numerous. The actual price paid in the country of origin is small. All the shipping, as well as the subsequent preparation and handling, could, in this manner, be done by the labour of these workers themselves, so that really it would be like putting in practice the plan of the co-operative organisations we have been describing, using existing machinery.

We know now all about the immense economies effected by providing people with articles of standard

pattern produced wholesale under advantageous conditions, and without the waste of ordinary commerce. A very small proportion of these workers only would have to the employed producing necessaries, so that a large proportion would be free for such work as rebuilding the towns.

To explain in another way how this would work: the organisation would pay in cheques an amount that would represent the simple cost of production of the goods, with the raw materials purchased at the most advantageous prices, plus a legitmate wage of organisation, but not a profit in the ordinary commercial sense, because manufacturers and other producers should be quite pleased to do this extra business for people who might otherwise have been unemployed, receiving just their proper wage of supervision. Now these rates would certainly not be more than half of the ordinary retail prices, as a matter of fact they would be considerably less. But the organisation would sell the workers produce at rates equal to about the retail ones. The cheques therefore would come back in exchange for about half the goods they had paid for. What then would be done with the other half? The answer, of course, is that cheques would be issued to other workers employed in rebuilding the towns. They, thus, would consume the remainder of the goods.

But now comes the question who should get this profit on the transaction.

It would be quite right that these workers who had sacrificed, for the time being, the privilege of having their remuneration in money to buy what

they want where they want should have it. Then this employment would have a very great attraction which would draw good men to it, and it would relieve unemployment in the correct way : that is to say by prevention ; not by cure which is hopeless.

The profit, then, which on that computation would be about equal to the cost of maintenance, could be credited to the men in the form of some kind of Government Stock that would be really share certificates in the work they had contributed to carry out.

It might also take the form of a mortgagee's ownership of a house, and, by working longer in the organisation, the worker might pay off the mortgage if he wished, and own his house.

At all events those who had worked in this organisation would naturally have prior claim to the occupancy of houses in the garden suburbs built by them. All then would have a means of escape from shows.

There are in fact numerous plans by which we could set any number of people to work producing necessaries of life for themselves and doing something useful in the country. The only difficulty is that there are prejudices in the way. People would be sure to complain of goods supplied by a government department, however excellent and serviceable they might really be. Financial interests also would oppose. But we are here in presence of an emergency measure, and exceptional circumstances ; that is our opportunity, and the difficulties might be got over in the way I have just mentioned.

Combined with the very strongest patriotic appeal there would be an equally strong inducement to join this organisation for men returning from the war who would be altogether disinclined for life in the crowded towns, and would be only glad to be organised so that they would be able to build decent houses for themselves in garden suburbs.

This limited application of state socialism might prove acceptable to the advocates of socialistic measures as an instalment. But a socialist organisation like this would not be separate from the rest of the community. Its workers would need part of their pay in currency for many things they would want to purchase in the ordinary market. It would be quite possible to make their cheques legal tender. They would not be what the currency reformers understand by paper currency, but bonds exchangeable on demand for articles that everybody uses, and therefore as good as bank-notes.

There might, however, be opposition against that plan, but one way of giving these workers a part of their pay in cash would be by allowing the firms supplying this "works department" to pay any of their ordinary workers a small portion of their pay in the cheques of the organisation, and the workers from the organisation a small part of their pay in cash.

Then of course these workers would not be simply producing the necessaries of life for themselves co-operatively. But it would be absolutely wrong to argue that it would be setting the organisation up in competition with ordinary trade.

It is of some importance to realise that no well-founded objection could be made on the plea of such a thing damaging individualistic trading.

People are sufficiently enlightened now to realise that any plan to increase employment reacts favourably on nearly every branch of business.

Apart from that, however, there would be the same amount of money spent in trade, only the workers from the national organisation would be spending it instead of the ordinary workers, that is all. But some branches of trade would benefit: namely, those selling the things that these workers would buy with their cash, at the expense of other branches, namely, those that would lose custom through the ordinary workers having a small proportion of their pay in cheques. Precisely the same disturbance would occur through the manufacturers taking profits, landlords rents, mine-owners royalties in cheques. Inevitably in many cases they would use the cheques to obtain from the organisation something they might otherwise have bought elsewhere. But they would then have just that much more money to buy something else from some other traders, so it would be as broad as it was long. Similar disturbances would occur when a manufacturer did not purchase the raw materials with the cheques, but paid for them in cash, and with the cheques purchased something else of the organisation. One branch of trade then would gain and another would lose; unless all gained because prosperity would be increased.

The effect of carrying out any plan like this would

be to send wages up, by diminishing competition for work, and if we know anything at all about economics we know that would mean increasing the volume of trade, and therefore benefiting every branch of it.

No one will attempt to predict what exactly would be the effect on individualistic trade of organising a co-operative exchange. It is wrong, however, to say that an organisation like this one would compete with ordinary trade, or that there is any way in which we could distinctly say that it would harm it. There would be disturbances, as I have mentioned above, some benefited at the expense of others, but every measure of any kind carried out for any purpose has that effect. And the special feature of this one would be that, in a multitude of ways, it would tend to increase prosperity, so that even those who might otherwise have suffered under it might really be no worse off, or perhaps very much better off.

We must not fall into the gross error of saying that if the manufacturer receiving payment in cheques used the cheques left to him after paying wages to buy something from the organisation he would be patronising it instead of ordinary trade, as clearly he would then be buying raw materials for the organisation with his money, so his money would circulate in trade in that direction instead of in the other. It is true that the people he might have made the purchases from in the ordinary course would also have bought raw materials; but here we have to remember that there would be this additional exchange: namely, the co-operative exchange between

the manufacturer and the organisation. The error arises by leaving out of account the fact that his money, by circulating, would cause exchanges to take place in the ordinary way, and there would be, in addition, this co-operative exchange effected by the cheques, and in that way an additional exchange or circulation would be caused to take place. I am just mentioning this for those who might be mislead on this point which, stated in some ways, might perplex us for a moment.

Obviously we ought to have a socialistic organisation of that kind which would enable us to use any surplus labour doing work of national utility, thus abolishing unemployment in a really useful manner. At all events, it will be very generally agreed it should be done to use our surplus to labour rebuild our towns, and so save us from deadly peril, even if we do not intend it to be permanent.

But the really interesting thing, after all, is that we could get to work with a plan like this without waiting for the State, and, if we did, the measure of State help that would be indispensible could not possibly be refused. We can go forward and drag the State after us.

The fundamental principle, as we have already seen fully in these lectures, is that nearly all articles we use and consume can be produced with little labour if good methods are used, but the complications and extraordinary wastefulness of our commercial system make them expensive. If, therefore, people would arrange, on a large scale, to have everything they need produced and distributed under economical

conditions, and would sacrifice their fancies to some extent, they would be able to have the ordinary necessaries of life at the cost of very little labour, and so have considerable surplus labour-power to employ on works of the nature of those we have been considering. To take advantage of this principle we do not need the help of the State, as co-operators know quite well.

We might appeal to men returning from the war, who would not be inclined to go back to the old artificial and drudging conditions of life, to form themselves voluntarily into a rehousing organisation, so as to be in possession soon of dwellings with gardens in which they would be able to live under natural and rational conditions.

They would need the help of the State with respect to the land, but obviously it could not be refused them for a purpose so eminently good from the national point of view. In this very practical way a reasonable measure of land reform might be so to speak forced upon the nation.

We have every reason to think that if a determined effort of this kind were organised by people realising the immense national importance of what they would be doing, the State would be compelled, if not actually to take the matter up itself, at all events give every assistance to a voluntary rehousing army, and protect it from the "profiteer," and give it every facility to obtain land and everything it needed from private firms on absolutely equitable and favourable terms whilst engaged on this work required for our national welfare and safety.

If therefore we will take the trouble to study this question and to direct the attention of the various organisations working among soldiers to it, we have good reason to hope that we might initiate a work that would be of absolutely incalculable national value, and of the greatest value to the whole world, because when one country starts town reform, others will have to follow. We must first get to understand, that is our duty, and then these things may be done at last that hitherto politicians have only talked endlessly about. If we start the educational organisation as an object-lesson the rehousing organisation on the same principle will follow almost as a matter of course.

A nation of town-dwellers, as the British have now become, that has been first aroused to concious-ness of the fact that ill-planned towns are the most potent causes of the evils that accompany our modern civilisation, the moral as well as the economic, and all others, and then, by a great war, to the fact that the gravest dangers it is exposed to from without are also due to them, should not speak of any such thing as an unemployment problem whilst any of its towns remain ill-planned. Towns as they are now are a crime against humanity. And, once more, because it is of such importance, unemployment is unknown under the conditions that will exist when the rebulding is complete. Home agriculture is invincible where the farmer can load his produce onto his cart and take it direct to his customers, as he would be able to do with population decentralised in garden suburbs; and where industry and agriculture flourish side by side unemployment is not found.

If we were still in the old position of depending upon educating the masses before we can hope for State action we might say with truth that we cannot make a nation do what it ought to do except at the best very slowly.

But how different is the new position, as created by recent immense increases of productive power.

I shall sum it up briefly in conclusion of these lectures.

The question of utilising our enormous productive power for the good of the masses has hardly yet been studied in a scientific temper, owing to the simple fact that the subject arouses passion to such an extent that people have invariably approached it with some strong fixed prejudice.

It is absolutely certain that if we take some trouble in the matter, we can move people of education to a duty so obvious as that of studying this question soberly, when it is clear that if they continue to neglect it, they will not only be false to science, but also to our gallant defenders.

When we come to take stock of our copious literature on this question we find that it consists of the writings of people who, under the influence of one or the other of various schools of social reformers, were not seeking a solution with an open mind, but bent on proving that if some particular feature of our social system that school signals out for special condemnation were removed, the problem would be solved. The different schools start with mutually contradicting assumptions. One of them argues for the abolition of the capitalist system ;

another for the abolition of private ownership of land; another for reform of our currency system. Their arguments, therefore, although both interesting, and correct in their theoretical aspect, are not a scientific or practical treatment of the subject any more than the platitudes of the writings of moralists who tell us that if we changed men's hearts the problem would solve itself.

Obviously nothing can be conceived more discreditable to our men of science and learning than to have abandoned such a subject to such treatment as that, and now the call comes to them with the greatest possible urgency to rouse themselves to study the question as they do any other, taking men's hearts, capital, land and everything else as they are in the world we live in.

The very first thing we see when we come to study the question scientifically is that we can establish, as we establish any other kind of industry, an organisation of labour and supply of necessaries that can use our great productive power to solve the problems of education and employment, and improve the conditions under which the workers live. And, as I have shown in this lecture, where the help of the State is necessary we can draw it, indeed force it, into co-operation.

It is abundantly clear also that when we set legislation in motion in that practical way, we shall find that, whether in connection with the land or anything else, it will be vastly simpler than the partisans of theories ever anticipated.

All the idealists who are sane will join wholeheartedly in advancing along this open road, because they will see that we shall then be establishing the conditions that would favour any really good change.

There is, as I said before, every reason for Indian men of education to take a prominent part in laying the foundation of a scientific study of this hitherto so extraordinarily befogged subject.

The poverty problem is pre-eminently India's problem, so it is pre-eminently the duty of all her men of education to help to see that the question of remedying it is treated as every other serious question is. At the same time the way to its solution happens to be *via* educational reform, and popular education is what India is waiting for in order to start real progress. Finally, the first step will very obviously be in the direction of solving the urgent question of their own class: the pressing middle class unemployment question, so it comes straight into their very homes. As I have already mentioned, that is why I came to India, and why I appealed to that great leader of her intellectuals, Sir Ashutosh Mookerjee, who, in response, arranged for me to give these lectures to the University.

It seems cynical but it is generally true to say that things get done when some people are stimulated to help by a clear personal interest.

There are very numerous wealthy middle class parents who would find it to their immediate interest to co-operate in the establishment of industrial colonies such as I described in my last lecture, and men of education have the greatest interest in

making the facts known, and induce the wealthy and generous ones to act, because these colonies would provide employment for poor middle class youths also. Here, therefore, they will find the best possible patriotism combined with the very best care for their family interests whenever they have relatives to be provided for.

The duty of men of education in the crisis is as fascinating as it is urgent, for there is no more interesting work one could possibly turn oneself to than that of rescuing such an important subject as that of abolishing poverty from a state of chaos, and setting it up in its proper dignity among the sciences, and this science opens up at once to us a horizon of extraordinary hopefulness. But in order to help those who are now fighting for us, we must be prompt and prompt to get to work if we wish to ward off the danger of our civilization being led to ruin after the war by hasty and ill-conceived social changes. There is no time to lose, and I hope my endeavours in these lectures to impress this great fact on my hearers will not have been in vain. The work is started, all can help, and no help would be more useful than that of making the facts more widely known and really understood.

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